

DIGITAL ARTIST ACCELERATES WORKFLOW WITH EXTERNAL GRAPHICS (EGPU)



PARTNER

Creative Bloke

INDUSTRY

Media & Entertainment

CHALLENGES

To enable a small independent visual effects facility, Creative Bloke, with a versatile GPU that contains a combination of portability and performance to cater to their wide and varied portfolio of clients.

SOLUTION

Creative Bloke utilized the AMD Radeon Pro WX 9100 graphics card in the Apple-recommended Sonnet eGFX Breakaway Box 650W, with Sonnet connected to an AMD FreeSync¹-enabled 4K display.

RESULTS

Enhanced performance, power, and speed enabled Creative Bloke artists to work faster and more efficiently. For a Radeon™ ProRender scene he created, the Radeon Pro WX 9100 eGPU took 10 minutes and 8 seconds to render the scene compared to more than 42 minutes for the laptop's internal Radeon Pro 560X.²

SOFTWARE USED

After Effects | Adobe
Premiere | Adobe
Final Cut Pro X | Apple
Cinema 4D | Maxon

AMD TECHNOLOGY AT A GLANCE

Radeon Pro WX 9100 eGPU

From the UK's National Trust to magazine publishers to manufacturers, digital content creator Mike Griggs has a wide and varied portfolio of clients for whom he creates 3D art, motion graphics and multimedia exhibits. A typical day might involve sampling birdsong near Virginia Woolf's country estate or creating 3D animations for VR. To keep on top of these demands, Griggs wanted to take the full power of the GPU computing revolution on the road.

"My work is never the same from one day to the next, and I need the power that GPU computing offers for CGI animation and portability – for client visits, working on the go, collating data from photo and video shoots and just exploring ideas while sitting on the sofa," said Griggs, founder of Creative Bloke.

However, until recently, Griggs found the combination of portability and performance led to many compromises instead of the optimal "laptop turned desktop workstation" he sought. Then Apple officially rolled out external GPU (eGPU) support for Thunderbolt 3-equipped Macs³, only recommending eGPU solutions powered by AMD graphics cards.

"I was thrilled," Griggs said. "The eGPUs have long been the grail of modular computing, and staying with the Mac has become so much easier because of the eGPU support."

AMD RADEON PRO SUPERPOWERS MAC GRAPHICS

An eGPU is a full-sized graphics card installed in an external enclosure with its own power supply that is then connected to the host PC or laptop via a Thunderbolt™ 3 USB Type-C interface. The latest macOS versions robustly

integrate eGPU support for Radeon Pro graphics, providing a simple, plug-and-play experience for artists such as Griggs to easily and instantly boost the graphics capabilities of his Mac system.

Griggs chose the AMD Radeon Pro WX 9100 graphics card in the Apple-recommended Sonnet eGFX Breakaway Box 650W, with the Sonnet connected to an AMD FreeSync¹-enabled 4K display. The combination overcomes a "frustrating compromise" that Griggs had made for years – that of having to switch between his Apple MacBook Pro and higher-powered Windows-based workstations he custom-built.

With the Radeon Pro WX 9100 eGPU, Grigg says his laptop feels like a workstation. "Day-to-day tasks feel quicker with the powerful GPU," he said, adding that "the Radeon Pro WX 9100 throws graphics and UI elements around the screen smoother than a hot knife through butter."

He said in his experience, the performance of After Effects and Premiere, both from Adobe, is enhanced by the powerful GPU, while his favorite editing application, Apple Final Cut Pro X, is "a beast" on the eGPU when scrubbing, rendering previews and working with effects and motion graphics.

In his own tests, Griggs said the speed improvements when using the Radeon Pro WX 9100 eGPU with a MacBook Pro for Maxon Cinema 4D are also dramatic. For a Radeon ProRender scene he created, the Radeon Pro WX 9100 eGPU took 10 minutes and 8 seconds to render the scene compared to more than 42 minutes for the laptop's internal Radeon Pro 560 integrated graphics. This is a benefit when working under tight deadlines.

"With everything delivered digitally, if you're on a one- or two-day turnaround and someone's screaming at you, a half hour can make a difference," he said.

With a performance increase of up to 4x⁴, the Radeon Pro WX 9100 eGPU in tandem with the MacBook Pro also has a creative impact, according to Griggs.

"Quicker render times means quicker iteration which makes better images," he said. "You are starting to explore things with your creativity you would not have before because it would take 45 minutes to render. Now what you see is what you get, you can tweak and update while maintaining a continuous workflow."

RADEON PRO WX 9100 EGPU CREATES FLEXIBILITY FOR SMALL BUSINESSES

All these workflows can become even more efficient, as a single MacBook Pro or iMac Pro can support multiple Radeon Pro WX 9100 powered eGPUs through multiple Thunderbolt 3 connections. "You could create a scalable, modular workstation with multiple eGPUs combined with the powerful internal Radeon graphics cards the iMac Pro ships with," Griggs said.

"The AMD Radeon Pro WX 9100 throws graphics and UI elements around the screen smoother than a hot knife through butter."

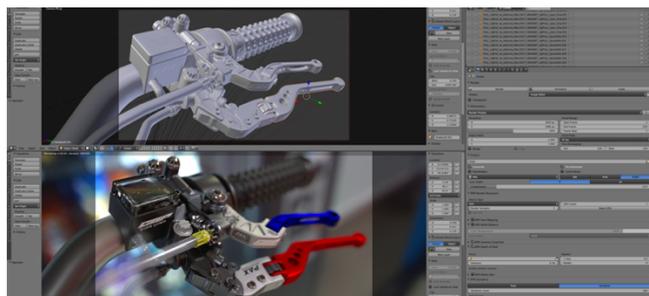
Mike Griggs, Founder, Creative Bloke

Griggs said this flexibility creates an upgrade path for the current generations of Macs for the first time, extending the performance of the hardware, critical for artists making a substantial capital investment in Apple hardware. He also enjoys the flexibility of hot-swapping eGPUs: when he needs optimal performance across all his video and graphics applications, Griggs can use the Radeon Pro WX 9100 eGPU to keep his MacBook Pro charged while essentially turning it into a desktop workstation. He can then simply disconnect the eGPU when the laptop's onboard GPU is sufficient.

"The way this functionality has been implemented by Apple and AMD fixes a complex task," he said, noting that typically it is extremely difficult to hot swap an internal graphics card. "You plug the eGPU into the back of your computer and you're done—and your machine is three times more powerful."

In addition to helping to protect investment in Apple hardware, the eGPU opens new competitive opportunities for independent digital content creators, he said. "With my AMD Radeon Pro eGPU box, I can compete with larger studios for certain tasks because I can deliver a high-quality product just as quickly as they can."

He noted the different performance and price points of Radeon Pro graphics cards should make them accessible to most graphics content creators. Coupled with an eGPU enclosure, all will enhance the desktop experience when using a MacBook Pro, he said. Griggs added: "It is worth the investment, as when the eGPU setup is working with the Radeon Pro WX 9100 eGPU, it is truly awesome."



ABOUT CREATIVE BLOKE

Polishing Pixels since 1995 - Mike Griggs is the very definitive of a creative generalist. Mike can work as a solo practitioner or as an integrated VFX, motion graphic animator, 3D/VR artist or editor as part of your team. Alternatively Mike works with a range of other creative specialists to provide a wide range of video and installation work, and is a regular contributor to 3D World magazine. Mike has helped clients such as the BBC, the Natural History Museum, BP, The National Trust, the Science Museum, Castrol, Volvo, JC Decaux, Invensys, the British Library, Dynamic Earth, The Royal Museum of Scotland, the National Maritime Museum, UAE Expo 2010 and a wide range of other clients in Europe, the US, the Middle East.

ABOUT AMD

For more than 45 years AMD has driven innovation in high performance computing, graphics, and visualization technologies – the building blocks for gaming, immersive platforms, and the datacenter. Hundreds of millions of consumers, leading Fortune 500 businesses, and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work, and play. AMD employees around the world are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit www.amd.com

1. Requires a monitor and AMD Radeon™ graphics, both with FreeSync support. See www.amd.com/freesync for complete details. Confirm capability with your system manufacturer before purchase. GD-127

2. In independent testing performed by Mike Griggs, founder of Creative Bloke, using the Radeon Pro WX 9100 eGPU with a Thunderbolt 3-equipped MacBook Pro running Maxon Cinema 4D.

3. External graphics processors (eGPUs) are supported on any Thunderbolt 3-equipped Mac running macOS High Sierra 10.13.4 or later (support.apple.com/en-us/HT208544).

4. Testing conducted by AMD Performance Labs as of June 18th, 2018, on a 2017 15" Mac Book Pro test system comprising of Intel Core i7 quad-core processor@ 3.1GHz, 16GB DDR3 system memory, macOS 10.13.2 (High Sierra), Radeon Pro 560 integrated graphics, and Sonnet eGPU Breakaway box with AMD Radeon™ Pro WX 9100 graphics. Benchmark Applications: Maxon® Cinema4D® and Radeon™ ProRender, Autodesk® Maya® and Radeon™ ProRender. Performance measured using the internal "AMD_motorcycle" model for Cinema4D, "helmet_demo.mb" for Maya. Results of benchmark with "AMD_motorcycle" model: Onboard graphics = 939 seconds, Onboard + eGPU = 269 seconds. 939/269 = 3.49x improvement. Results of benchmark with "helmet_demo.mb" model on Maya: Onboard graphics = 1644 secs, Onboard + eGPU = 408 seconds, 1644/408 = 4x improvement. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. RPW-210

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