HOW TO PRESENT
SPECviewperf® 12

Winning where it matters most

Who's it for

IT as well as Engineering and Creative Design professionals working with CAD, CAE, CAM, Media and Entertainment, Medical and Energy applications who currently evaluate workstation graphics hardware and application performance with SPECviewperf® 11.

Present it in 5 seconds

SPECviewperf® 12 is the newest version of this industry standard benchmark designed specifically to stress workstation graphics cards and assess performance of the latest animation, design, 3D modeling and engineering applications. AMD FirePro delivers leading performance across the entire product stack.

Present it in 60 seconds

- Developed by Standard Performance Evaluation Corporation (SPEC) and multiple SPECgpc committee members, including AMD, Dell, Fujitsu, HP, Intel, Lenovo, NEC and Nvidia

- Replaces the SPECviewperf® 11 benchmark, originally introduced in June 2010 and created by a single member of the SPECgpc committee

- AMD was a major contributor the development of SPECviewperf 12, providing models and graphics traces for several of the tests as well as engineering and testing of the overall benchmark.

- It's based on latest versions of professional graphics applications, including Autodesk® Maya® and Showcase®, Dassault Systèmes CATIA and SolidWorks, PTC® Creo®, and Siemens NX.

- Purpose built to stress workstation graphics card capabilities and more closely mimic real applications

- Includes new tests designed to emulate workloads for energy and medical volumetric rending, and the first ever DirectX® test with traces taken from Autodesk® Showcase®

- No application licenses are required, anyone can download the benchmark and run the test (as long as testing system meets benchmark requirements).

- SPECviewperf 12 can be used now as a reliable indicator of expected application performance. Users can gain a more realistic understanding of how well applications will perform and can make a more informed hardware purchase decision, especially when used in conjunction with application-based benchmarks, like SPECapc®, and additional end-user testing.

Why it's great

After SPECviewperf 11, the benchmark was re-architected to decouple the actual tests and data from the test framework. The new viewsets (individual tests) included in SPECviewperf 12 are designed to do a much better job of replicating the real-world experience of running applications on professional graphics cards and takes advantage of the latest GPU APIs such as OpenGL 4.0 and DirectX® 11.

This new design provides three major benefits:

1. It allows for viewsets to be submitted individually. SPECviewperf 11 was created by a single member of the SPEC committee with little ability for other committee members to contribute or review the benchmark dataset source or raw trace data. SPECviewperf 12 consists of viewsets submitted from several committee members, each submitting full source code for the tests that can be easily reviewed by all committee members.

2. SPECviewperf 12 traces are taken from the latest versions of the applications. SPECviewperf 11 was released in 2010, with software vendors commonly releasing update versions on an annual basis. SPECviewperf 11 traces are three or more versions behind the currently shipping versions of those applications.

3. A more fair and accurate representation of how well AMD FirePro graphics perform with the latest applications. SPECviewperf 11 unfairly portrayed Nvidia as having better performing hardware. Against the new benchmark AMD hardware significantly outperforms in Nvidia in most tests.

✓ How we compare

ENTRY LEVEL
AMD FirePro™ up to 3.6x Faster!

Average Frames Per Second

sw 03 | snx 02 | showcase 01 | medical 01 | maya 04 | energy 01 | creo 01 | catia 04

■ AMD FirePro™ V3900   ■ NVIDIA Quadro 410
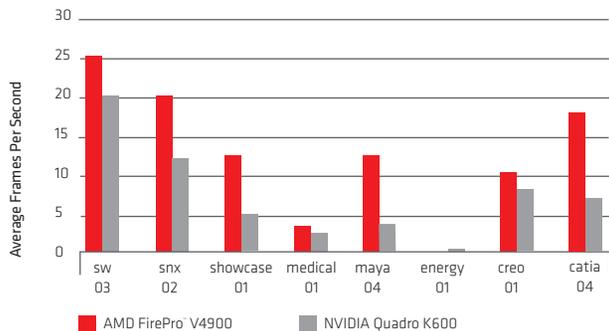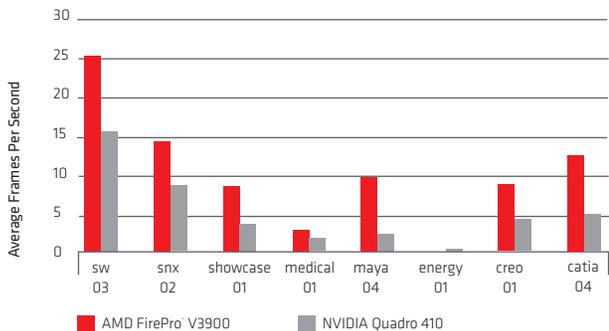
MID-RANGE
AMD FirePro™ W5000 up to 2.3x Faster!

Average Frames Per Second

sw 03 | snx 02 | showcase 01 | medical 01 | maya 04 | energy 01 | creo 01 | catia 04

■ AMD FirePro™ V4900   ■ NVIDIA Quadro K600

■ AMD FirePro™ W5000   ■ NVIDIA Quadro K2000
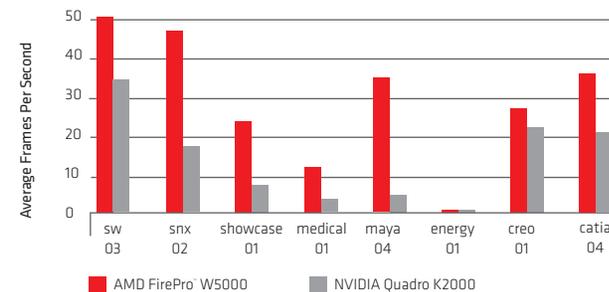
HIGH-END
AMD FirePro™ W7000 up to 1.7x Faster!

Average Frames Per Second

sw 03 | snx 02 | showcase 01 | medical 01 | maya 04 | energy 01 | creo 01 | catia 04

■ AMD FirePro™ W7000   ■ NVIDIA Quadro K4000
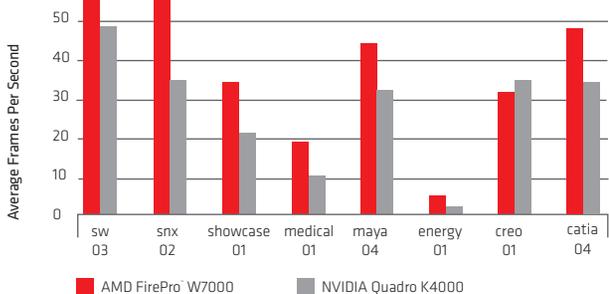
MOBILE WORKSTATION
AMD FirePro™ up to 2x Faster!

Average Frames Per Second

sw 03 | snx 02 | showcase 01 | medical 01 | maya 04 | energy 01 | creo 01 | catia 04

■ AMD FirePro™ M5100   ■ NVIDIA Quadro K2100M   ■ NVIDIA Quadro K1100M

■ AMD FirePro™ M6100   ■ NVIDIA Quadro K4100M   ■ NVIDIA Quadro K3100M
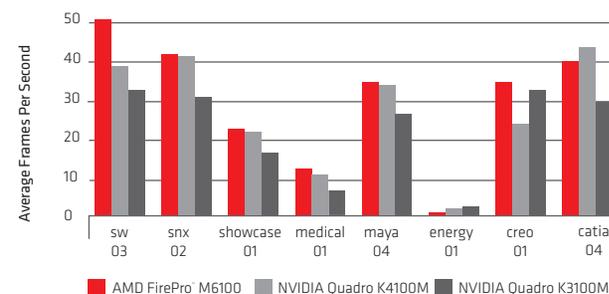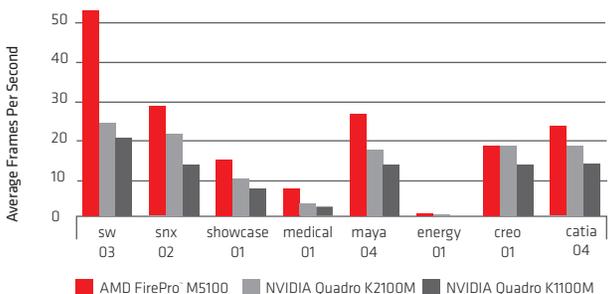
In fact, AMD dominates Nvidia across the board, from the entry level and mobile, up through the mid-range and into the high end.
Performance highlights include:

• AMD FirePro™ V3900 performs 3.6x as fast as the Q410 on maya-04

• AMD FirePro™ V4900 performs 127% as fast as the K600 on catia-04

• AMD FirePro™ M5100 performs 101% as fast as the K1100M on sw-03

• AMD FirePro™ M6100 performs 64% as fast as the K3100M on showcase-01

• AMD FirePro™ W5000 performs 129% as fast the K2000 on snx-02

• AMD FirePro™ W7000 performs 4.1x as fast as the K2000 on energy-01

• AMD FirePro™ W8000 performs 38% as fast as K5000 medical-01

AMD FIREPRO

For more information, visit www.amd.com/firepro