AMD RADEON PRO
Software
FOR ENTERPRISE

Who's it for?

• Enterprise Professionals, Engineers, Designers, Architects, 3D Artists, and Content Creators

Sell it in 5 seconds.

• AMD Radeon™ Pro Software for Enterprise optimizes your Radeon™ Pro professional graphics investment with quality, performance, security features, simplicity, and industry-leading innovation.
• Ready for demanding 24/7 environments, with extensive stability testing and comprehensive ISV certification.
• Performance optimized for leading professional applications to boost your productivity.
• Predictable quarterly release schedule helps Enterprises plan ahead.

Why it's great.

Enterprise-Grade Quality Through Extensive Testing:
• **Stress tested** to be ready for demanding 24/7 environments
• Extensive **pre-launch testing** minimizes post-launch issues
• Extensive **OEM platform** and **ISV partner** testing
• Consistent **image quality** in professional workflows
• Comprehensive **Day Zero ISV certification**

Radeon™ Pro Software Rethinks Performance:
• **Boost your productivity** by updating your driver thanks to the **continuous performance optimizations** in every Radeon™ Pro Software release
• **Real-World performance** that leads the competition in 3D modeling design steps[1]
• Outstanding performance in **demanding multitasking environments**[2]
• **Up to 2x Better Annual Improvement** than the competition[3]

Day Zero Certification Program:
• **Many professional ISV applications will be certified** before the latest Radeon™ Pro Software for Enterprise driver is released
• **Over 1000 Day Zero ISV Application Certifications** since the program launched in 2018[4]
• **More listed certifications** during the program lifetime **than the competition**[5]
• **Upgrade** to the latest Enterprise Driver **with confidence**

Advanced Security Features:
• Works in tandem with **Windows® Defender Device Guard** when using **Windows® 10 Enterprise edition** to **help thwart malicious attacks,** helping to protect your valuable intellectual property
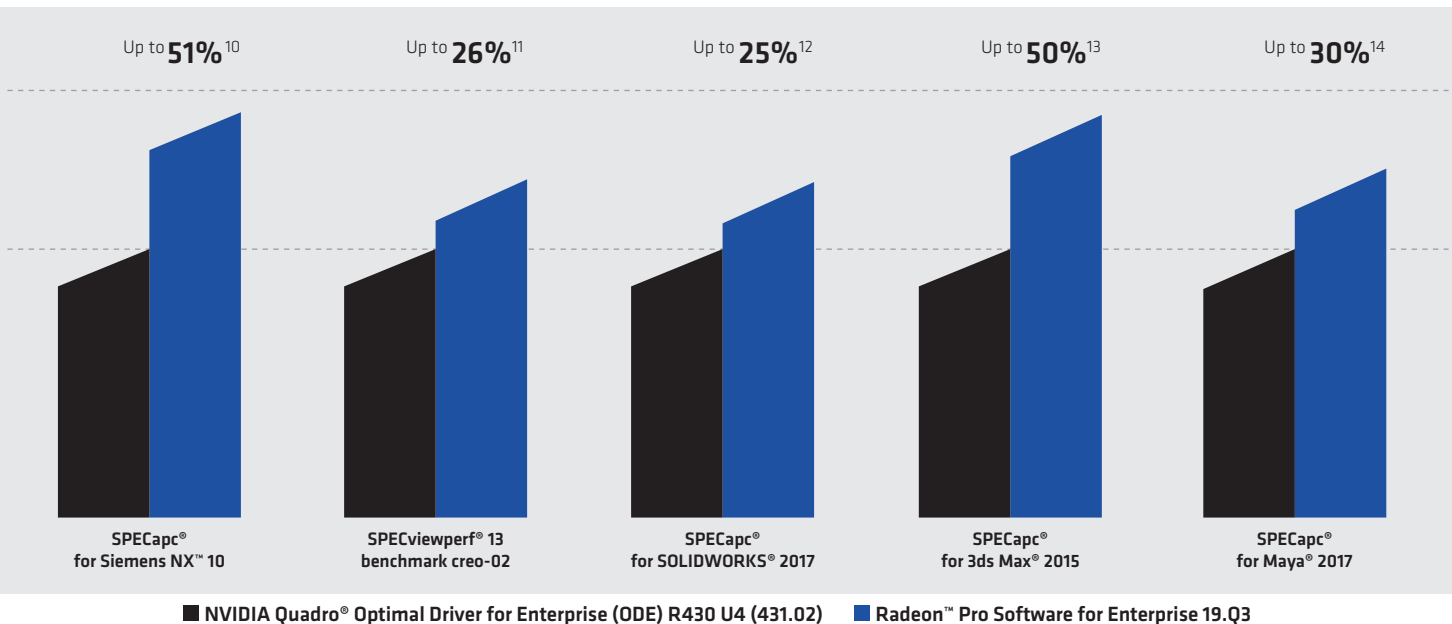
Innovative Technologies

- **AMD Remote Workstation:** Easily access the full GPU-accelerated experience of your select AMD Radeon™ Pro WX graphics card-powered workstation[6] from virtually anywhere[7]
- **AMD Radeon™ Pro Image Boost:** allows Radeon™ Pro graphics to output at a higher resolution and then scale down to the lower native resolution of your display, improving sharpness and clarity
- **AMD Radeon™ Pro ReLive[8]:** enables high-resolution screen capture recordings within professional applications for collaboration, presentation, training, and customer support
- **AMD Radeon™ ReLive for VR:** professionals can now wirelessly visualize their creations in VR from their workstation PC[9]

Performance:
Optimized for Leading Professional Applications

Up to **51%**[10] Up to **26%**[11] Up to **25%**[12] Up to **50%**[13] Up to **30%**[14]

SPECapc®
for Siemens NX™ 10

SPECviewperf® 13
benchmark creo-02

SPECapc®
for SOLIDWORKS® 2017

SPECapc®
for 3ds Max® 2015

SPECapc®
for Maya® 2017

■ NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02)   ■ Radeon™ Pro Software for Enterprise 19.Q3

Results are based on June 2019 internal testing of preliminary driver and may vary with use of final driver. See endnotes for details.

Additional Radeon™ Pro Software for Enterprise Features:

- **Quarterly Release Schedule:** scheduled availability the 2nd Wednesday of the 2nd month of each quarter[15]
- **24/7 Prioritized Support**[16]**:** speak with an AMD agent typically in under 4 minutes[17]
- **Unified "One Driver":** run applications on both physical and virtual machines using a single driver for ALL your AMD graphics hardware
- **AMD Radeon™ Pro Settings:** the user interface for Radeon™ Pro graphics, providing users with access to numerous innovative features
- **AMD Radeon™ Pro Overlay:** the in-app user interface for one-click access and control of Radeon™ Pro ReLive
- **Fan Control:** manual fan speed tuning available in AMD Radeon™ Pro Settings optimizes airflow when running demanding workloads in thermally stressful environments to maximize performance

Learn More:

For more information, please visit **WWW.AMD.COM/RADEONPROSOFTWARE**

AMD

FOOTNOTES

1. The Radeon™ Pro WX 7100 running on Radeon™ Pro Software for Enterprise 19.Q2 is up to 28% faster than the NVIDIA Quadro® RTX 4000 running on the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R418 U4 (425.31) driver in the AMD internal real-world SOLIDWORKS® 2019 design steps benchmark. Testing conducted by AMD labs as of April 22nd, 2019 on a test system comprising of HP Z8 Workstation platform, Intel® Xeon® Gold 5122 CPU @ 3.60 GHz, 16 GB RAM, Windows® 10 Pro October 2018 Update using Radeon™ Pro Software for Enterprise 19.Q2 running on the Radeon™ Pro WX 7100 and the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R418 U4 (425.31) driver running on the NVIDIA Quadro® RTX 4000. The test was conducted using the AMD internal real-world SOLIDWORKS® 2019 design steps benchmark. Using this configuration, the Radeon™ Pro WX 7100 took 145.4 seconds to finish the test while the competition took 186.2 seconds. Making the Radeon™ Pro WX 7100 up to 28% faster than the NVIDIA Quadro® RTX 4000. Performance Differential: 186.2-145.4 (seconds) =~28.0%. RPS-59

2. AMD Radeon™ Pro Software Adrenalin 2019 Edition for Enterprise 19.Q2 with Radeon™ Pro WX 4100 suffers negligible performance degradation when run in a multi-tasking workflow compared to running only the benchmark versus the NVIDIA Quadro® driver version 425.31 with Quadro® P1000 suffers up to a 49% performance drop in the multi-tasking workflow compared to running only the benchmark. Testing conducted by AMD labs as of June 24th, 2019 on a Dell Inspiron 7810, Intel® Xeon® Processor E5-2609 v3, 48 GB RAM, Windows 10 May 2019 Update, Radeon™ Pro WX4100, Radeon™ Pro Software Adrenalin 2019 Edition for Enterprise 19.Q2 driver. NVIDIA Quadro® P1000 graphics card, 425.31 driver. The SPECviewperf® 13 benchmark medical-02 viewset Composite Score was captured, while simulating a multi-tasking environment using the Prime95 application. With the multi-tasking scenario, the Prime95 application, stress test with 6 threads using "Blend" test setting, was running in the background, with no system interaction. AMD Radeon™ Pro WX 4100 SPECviewperf® 13 benchmark medical-02 viewset Composite Score is 18.90 without multi-tasking and 18.49 with multi-tasking. NVIDIA Quadro® P1000 SPECviewperf® 13 benchmark medical-02 viewset Composite Score is 17.75 without multi-tasking and 9.02 with multi-tasking. Radeon™ Pro WX4100 SPECviewperf® 13 benchmark medical-02 viewset Composite Score score decreased 2% with multi-tasking and NVIDIA Quadro® P1000 decreased 49% with multi-tasking. Scores are recorded as an average of 3 iterations. AMD multitasking performance drop calculation: (18.90 – 18.49)/18.90 = ~ 2%. NVIDIA® multitasking performance drop calculation (17.75 – 9.02)/17.75 = ~ 49%. SPEC® and SPECviewperf® are registered trademarks of Standard Performance Evaluation Corporation. See www.SPEC.org. RPS-83

3. The performance improvement over one year of the AMD Radeon™ Pro Software for Enterprise (18.Q3-19.Q3) when using a Radeon™ Pro WX 2100 graphics card is up to 2x better than the performance improvement over one year of the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) (R390 391.74 - R430 U4 431.02) when using an NVIDIA Quadro® P400 graphics card. Testing conducted by AMD Performance Labs as of June 2019, on a test system comprising of an Intel® Xeon® 4-core 2-125 4.50 GHz CPU, 32GB RAM, Windows® 10 Professional 64-bit Fall Creators Update, Radeon™ Pro WX 2100, AMD Radeon™ Pro Software for Enterprise 19.Q3, AMD Radeon™ Pro Software for Enterprise 18.Q3, NVIDIA Quadro® P400, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02)/NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R390 U6 (391.74). Benchmark Application: ran the SPECviewperf® 13 benchmark and then calculated the geomean of all viewsets (higher is better). AMD RESULTS: AMD Radeon™ Pro Software for Enterprise 19.Q3: 20.00. AMD Radeon™ Pro Software for Enterprise 18.Q3: 17.62. The results are the average of 3 iterations. Performance Differential: (20.00-17.62)/17.62*100 = ~13.51% better performance with AMD Radeon™ Pro Software for Enterprise 19.Q3. NVIDIA RESULTS: NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02): 16.40. NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R390 U6 (391.74): 15.35. The results are the average of 3 iterations. Performance Differential: (16.40-15.35)/15.35*100 = ~6.84% better performance with NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). OVERALL RESULTS: Improvement Differential: (13.51-6.84)/6.84*100 = ~97.51% (2x) better performance improvement over one year for AMD Radeon™ Pro Software for Enterprise 19.Q3. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. RPS-105

4. AMD Radeon™ Pro Software for Enterprise has over 1000 ISV application certifications since the start of the Day Zero Certification Program. Based on AMD internal research as of August 2, 2019, the total number of ISV application certifications for AMD Radeon™ Pro Software for Enterprise drivers (18.Q4 + 19.Q1 + 19.Q2 +19.Q3) since the start of Day Zero Certification Program (18.Q4 or November 14, 2018) is 1092. Please see https://www.amd.com/en/support/certified-drivers for a complete list of Radeon™ Pro Software certifications. RPS-107

5. AMD Radeon™ Pro Software for Enterprise has more listed ISV application certifications than the competition since the start of the Day Zero Certification Program. As of May 3rd 2019, based on certifications listed on AMD.com (https://www.amd.com/en/-support/certified-drivers) and Nvidia.com (https://www.nvidia.com/object/quadro-certified-drivers.html#page=partnerSelected), AMD Radeon™ Pro Software for Enterprise has more listed ISV application certifications than the competition since the start of the Day Zero Certification Program (18.Q4 or November 14, 2018). AMD drivers released since that date are: (18.Q4, 18.Q4.1, 19.Q1, 19.Q1.1, 19.Q1.2); NVIDIA® drivers released since that date are (411.81, 416.78, 411.95, 412.16, 418.81, 419.17, 412.29, 419.67, 425.31 and 430.39). Results are subject to change as certifications are completed. RPS-78

6. AMD Remote Workstation is supported on AMD Radeon™ Pro WX 4100, 5100, 7100, WX 8200, and WX 9100 graphics cards.

7. AMD Remote Workstation functionality requires AMD Radeon™ Pro Software for Enterprise driver 18.Q4 or newer plus purchase and installation of Citrix® Virtual Apps & Desktops or Microsoft® Remote Desktop Services. RPS-50

8. AMD Radeon™ Pro ReLive functionality depends on graphics card compatibility. Please see www.amd.com/en/technologies/radeon-pro-software-relive

9. *Radeon™ ReLive for VR for workstation wireless VR*
    Requires HTC VIVE Focus™ Plus headset. For VR connectivity, an 802.11ac router or access point is required. Compatible with AMD Radeon™ RX 470, RX 570, RX 480, RX 580, RX 590, RX Vega series, VII, AMD Radeon™ Pro Duo, SSG, WX 7100, WX 8200, and WX 9100 products. Supports: Windows® 10. GD-148

10. When using AMD Radeon™ Pro Software for Enterprise 19.Q3, the Radeon™ Pro WX 7100 GPU has up to an estimated 51% better graphics performance in the SPECapc® for Siemens NX™ 10 benchmark Graphics Composite (with FSAA enabled) when compared to the NVIDIA® Quadro RTX™ 4000 graphics card using the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Testing conducted by AMD Performance Labs as of June 2019, on a test system comprising of an Intel® Xeon® 4-core Gold 5122 3.70 GHz CPU, 32GB RAM, Windows® 10 Professional 64-bit May 2019 Update, Radeon™ Pro WX 7100, AMD Radeon™ Pro Software for Enterprise 19.Q3/NVIDIA® Quadro RTX™ 4000, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Benchmark Application: SPECapc® for Siemens NX™ 10 benchmark Graphics Composite (with FSAA enabled) (higher is better). Radeon™ Pro WX 7100 score: an estimated 4.04. NVIDIA® Quadro RTX™ 4000: an estimated 2.67. The results are the average of 3 iterations. Performance Differential: (4.04-2.67)/2.67*100 = an estimated 51.31% better performance with the Radeon™ Pro WX 7100 over the NVIDIA® Quadro RTX™ 4000. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. RPS-102

11. When using AMD Radeon™ Pro Software for Enterprise 19.Q3, the Radeon™ Pro WX 3200 GPU has up to 26% better graphics performance in the SPECviewperf® 13 benchmark creo-02 viewset when compared to the NVIDIA Quadro® P620 graphics card using the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Testing conducted by AMD Performance Labs as of June 2019, on a test system comprising of an Intel® Xeon® 4-core W-2125 4.50 GHz CPU, 32GB RAM, Windows® 10 Professional 64-bit Fall Creators Update, Radeon™ Pro WX 3200, AMD Radeon™ Pro Software for Enterprise 19.Q3/NVIDIA Quadro® P620, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Benchmark Application: SPECviewperf® 13 benchmark creo-02 viewset (higher is better). Radeon™ Pro WX 3200 score: 73.86. NVIDIA Quadro® P620 score: 58.53. The results are the average of 3 iterations. Performance Differential: (73.86-58.53)/58.53*100 = ~26.19% better performance with the Radeon™ Pro WX 3200 over the NVIDIA Quadro® P620. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. RPS-95

12. When using AMD Radeon™ Pro Software for Enterprise 19.Q3, the Radeon™ Pro WX 2100 GPU has up to 25% better graphics performance in the SPECapc® for SOLIDWORKS® 2017 benchmark Graphics Composite (with FSAA enabled) when compared to the NVIDIA Quadro® P400 graphics card using the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Testing conducted by AMD Performance Labs as of June 2019, on a test system comprising of an Intel® Xeon® 4-core W-2125 4.50 GHz CPU, 32GB RAM, Windows® 10 Professional 64-bit Fall Creators Update, Radeon™ Pro WX 2100, AMD Radeon™ Pro Software for Enterprise 19.Q3/NVIDIA Quadro® P400, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Benchmark Application: SPECapc® for SOLIDWORKS® 2017 benchmark Graphics Composite (with FSAA enabled) (higher is better). Radeon™ Pro WX 2100 score: 1.94. NVIDIA Quadro® P400 score: 1.55. The results are the average of 3 iterations. Performance Differential: (1.94-1.55)/1.55*100 = ~25.16% better performance with the Radeon™ Pro WX 2100 over the NVIDIA Quadro® P400. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. RPS-94

13. When using AMD Radeon™ Pro Software for Enterprise 19.Q3, the Radeon™ Pro WX 2100 GPU has up to an estimated 50% better graphics performance in the SPECapc® for 3ds Max® 2015 benchmark Graphics Composite (with 8xAA) when compared to the NVIDIA Quadro® P400 graphics card using the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Testing conducted by AMD Performance Labs as of June 2019, on a test system comprising of an Intel® Xeon® 4-core W-2125 4.50 GHz CPU, 32GB RAM, Windows® 10 Professional 64-bit Fall Creators Update, Radeon™ Pro WX 2100, AMD Radeon™ Pro Software for Enterprise 19.Q3/NVIDIA Quadro® P400, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Benchmark Application: SPECapc® for 3ds Max® 2015 benchmark Graphics Composite (with 8xAA) (higher is better). Radeon™ Pro WX 2100 score: an estimated 2.22. NVIDIA Quadro® P400 score: an estimated 1.48. The results are the average of 3 iterations. Performance Differential: (2.22-1.48)/1.48*100 = an estimated 50% better performance with the Radeon™ Pro WX 2100 over the NVIDIA Quadro® P400. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. RPS-87

14. When using AMD Radeon™ Pro Software for Enterprise 19.Q3, the Radeon™ Pro WX 7100 GPU has up to 30% better graphics performance in the SPECapc® for Maya® 2017 benchmark Graphics GPGPU Composite (with no AA) when compared to the NVIDIA® Quadro RTX® 4000 graphics card using the NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Testing conducted by AMD Performance Labs as of June 2019, on a test system comprising of an Intel® Xeon® 4-core W-2125 4.50 GHz CPU, 32GB RAM, Windows® 10 Professional 64-bit Fall Creators Update, Radeon™ Pro WX 7100, AMD Radeon™ Pro Software for Enterprise 19.Q3/NVIDIA® Quadro RTX® 4000, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R430 U4 (431.02). Benchmark Application: SPECapc® for Maya® 2017 benchmark Graphics GPGPU Composite (with no AA) (higher is better). Radeon™ Pro WX 7100 score: 2.50. NVIDIA® Quadro RTX® 4000 score: 1.92. The results are the average of 3 iterations. Performance Differential: (2.50-1.92)/1.92*100 = ~30.20% better performance with the Radeon™ Pro WX 7100 over the NVIDIA® Quadro RTX® 4000. Scores are based on AMD internal lab measurements and may vary. PC manufacturers may vary configurations, yielding different results. Performance may vary based on use of latest drivers. Additional information about the SPEC benchmarks can be found at www.spec.org/gwpg. RPS-93

15. Dates subject to change.

16. AMD will work with ISV & OEM partners to provide priority engineering support for Enterprise users. 24/7 support is only guaranteed in English and is as follows by region: North America: English 24/7. United Kingdom: English 24/7. France: French Mon – Fri 11 A.M. – 6 P.M., English on off-hours. Germany: German Mon – Fri 11 A.M. – 6 P.M., English on off-hours. China: Chinese Mon – Fri 9:30 A.M. – 5 P.M. Asia CST, English on off-hours. India: English 24/7. Japan: Japanese Mon – Fri 9:30 A.M. – 5 P.M. Asia CST, English on off-hours.

17. 4 minutes is the expected response time based on AMD internal data and is not guaranteed.

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