September 2017

New Brand Identity

2016 → 2017

Traditional Workstation

W-Series

Professional Content Creation & Visualization

Traditional Server

S-Series

HPC Accelerator & Machine Intelligence

Radeon Reach

Consumer Brand

RADEON RX

Best in Class
Gaming Experience

Professional Brand

RADEON PRO

Professional Content
Creation & Visualization

- **Pro** — Strategic Use Cases
- **Pro WX** — Desktop & Mobile Workstations
- **Pro V** — Virtualized Graphics

Compute Brand

RADEON INSTINCT

HPC Acceleration &
Machine Intelligence

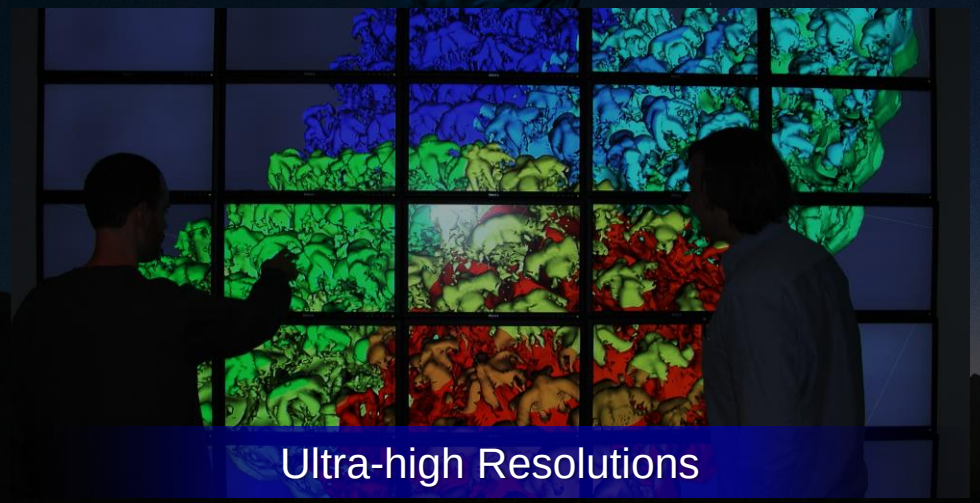
- **MI** — Compute Server Accelerators

Industry Trends

Intersecting the Inflection Points


Immersive and Interactive Displays


Real-time Graphics Engines for Design


Ultra-high Resolutions

Photorealistic Rendering

Virtual Reality in Professional Space

Many use cases for VR beyond gaming

Professional applications

- Digital mock-up
- Manufacturing simulation
- Serviceability
- Maintenance
- Design review
- Collaboration
- Training

CAD-to-VR workflows are being optimized and automated to promote iterative design

Industry Backing for Professional VR

Design & Engineering

VRED

revizto™

VROOMX

VIRTALIS

iris

MINDESK®

AUTODESK LIVE

more3D

VIMtrek™ where sense meets sizzle

ENSCAPE™

Animation & Filmmaking

NOZON

MAYA

CARAVR

Pr

CINEMA 4D

Kolor

AVID™

METTLE SKYBOX

360VR TOOLBOX

Real-Time Engines

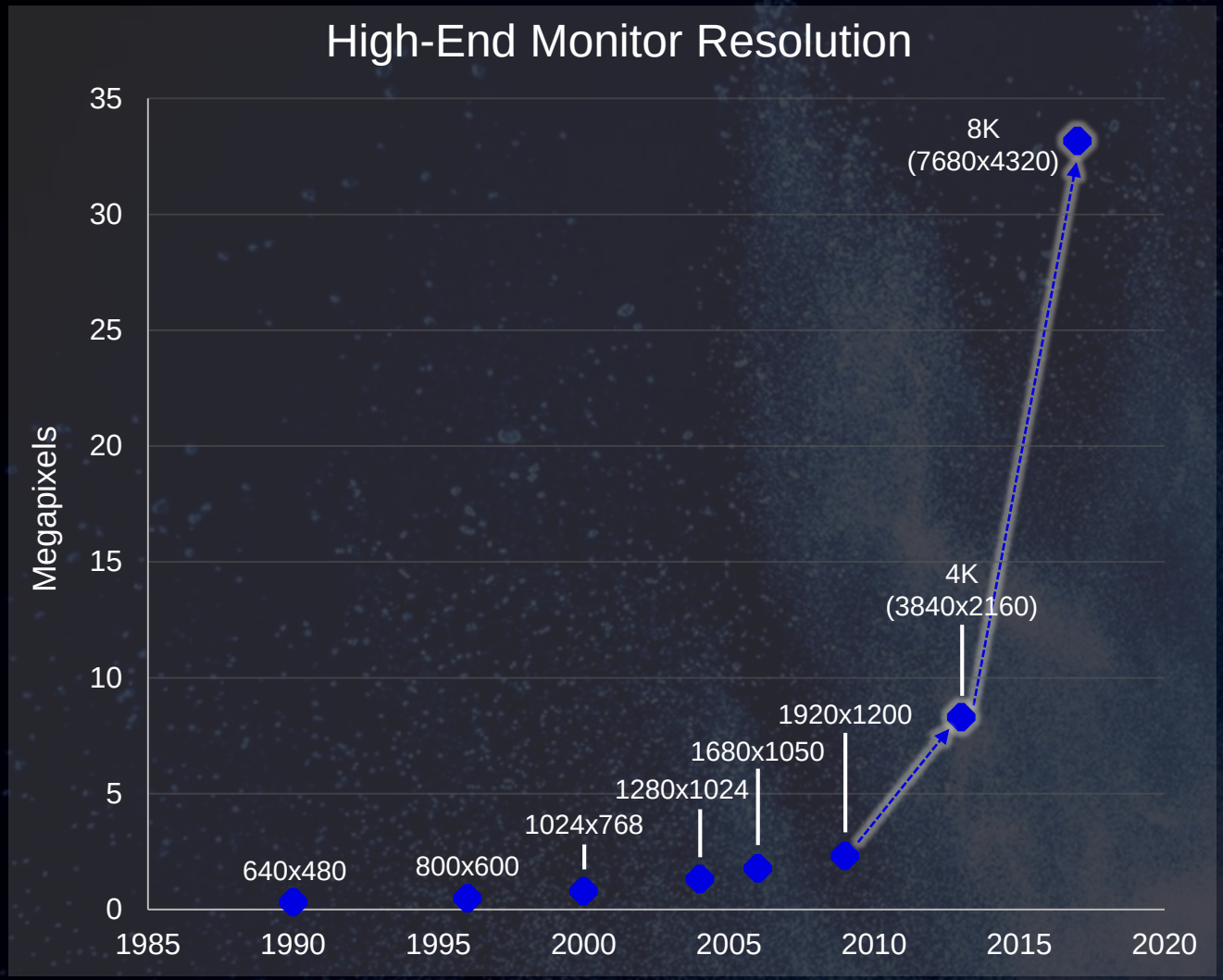
UNREAL ENGINE

unity

lumberyard beta

STINGRAY

Growing Demand for More Pixels



CPU Core Count
4 Cores (2007) → 32 Cores (2017)

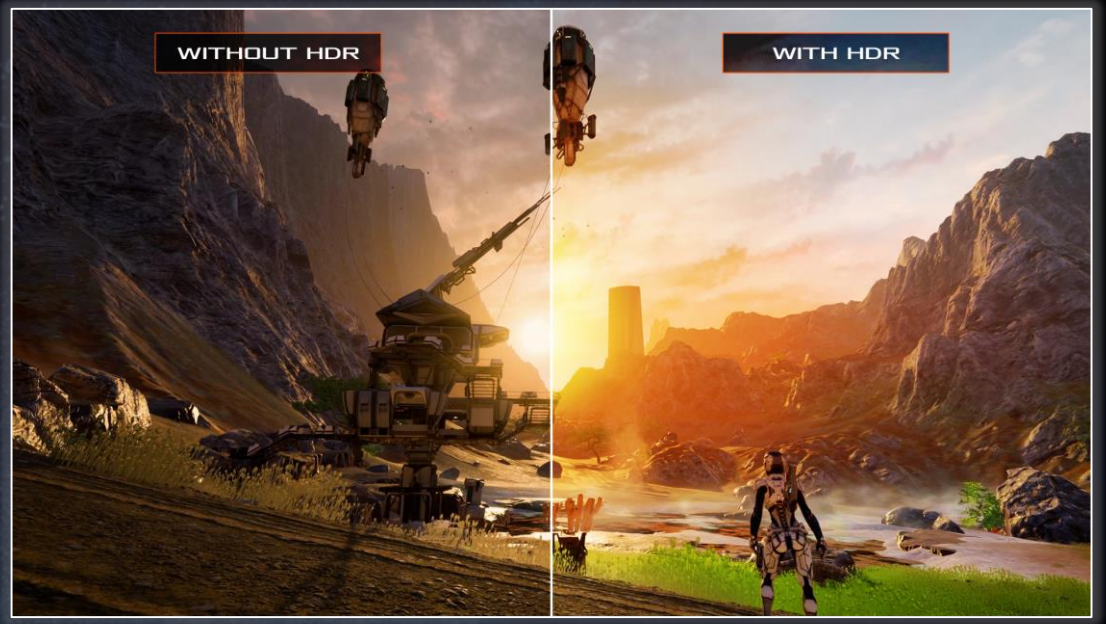
GPU Performance
0.5 TFLOPS (2007) → 12 TFLOPS (2017)

System Memory
2GB DDR2 (2007) → 32GB DDR4 (2017)

Solid State Drive Capacity
Did not exist (2007) → 2TB (2017)

Display Resolution
2 Megapixels (2007) → 33 Megapixels (2017)

Future of High Fidelity Visualization



All Radeon Pro products support up to 8K with HDR

Revolution in Iterative Design

Unreal Engine

Corona Render

Real-time graphics engines enable rapid iterations for design and simulation

unity

UNREAL ENGINE

lumberyard beta

STINGRAY

High Performance Rendering

Built on OpenCL 1.2

OpenCL

Free and Open-source

GPUOpen

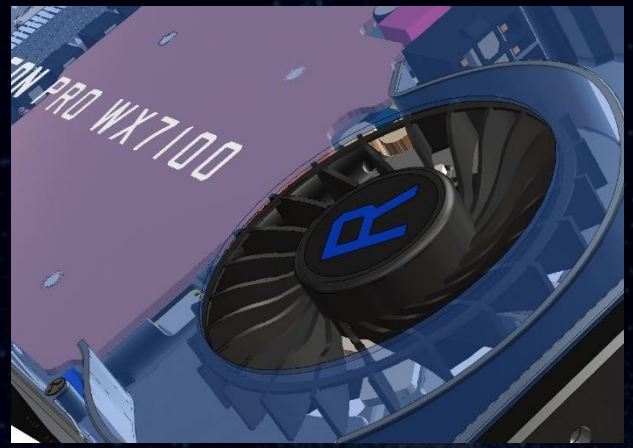
Hardware Agnostic

Intro to Professional Graphics

Why Are Professional Graphics Needed?

Design

Engineering



Architecture

Science

Media and Entertainment

Finance

Medical

Oil and Gas

Reliability | **Performance** | **Innovation**

Comprehensive Software Certification

Reliability | **Performance** | **Innovation**

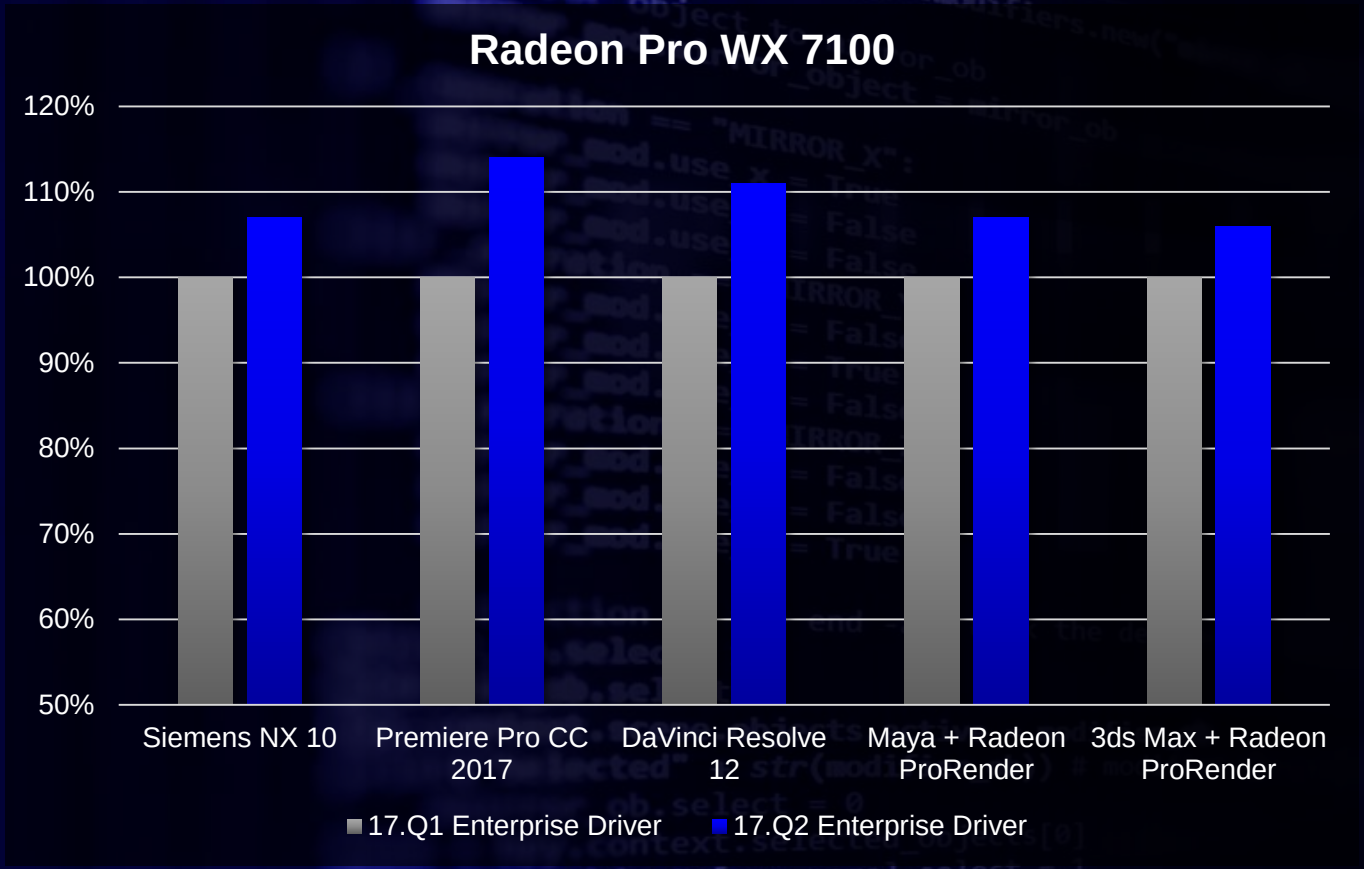
Extreme operating temperatures
(0°C - 55°C)

Storage temperature cycling
(-40°C - 70°C)

Accelerated lifecycle stress
(85°C, 85% humidity)

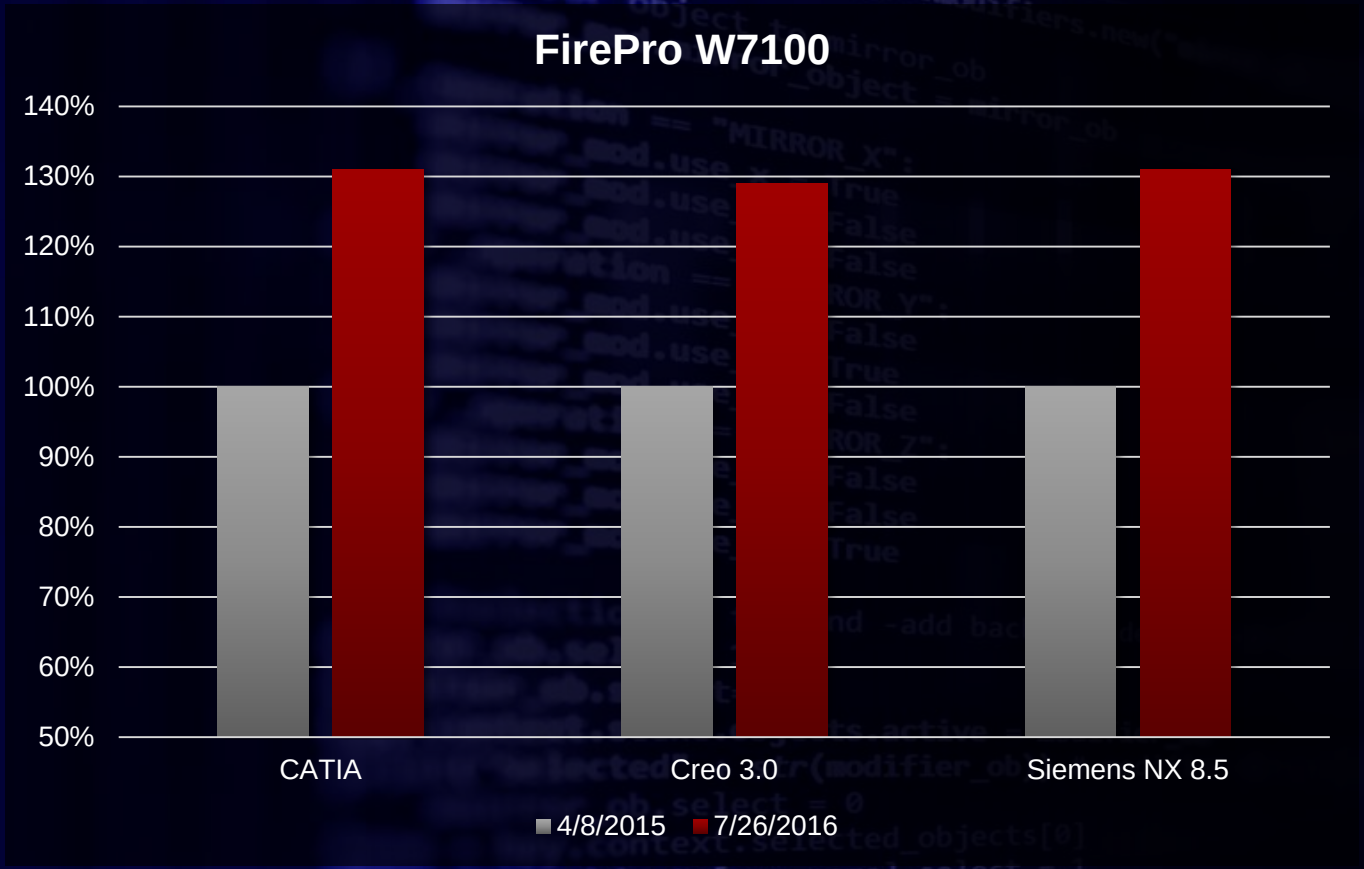
10.9 Years
Hardware MTBF

Reliability | **Performance** | **Innovation**



Continuous performance optimizations for professional applications

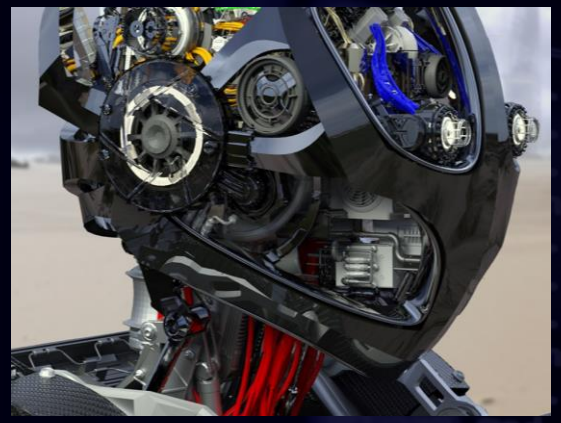
Reliability | **Performance** | **Innovation**



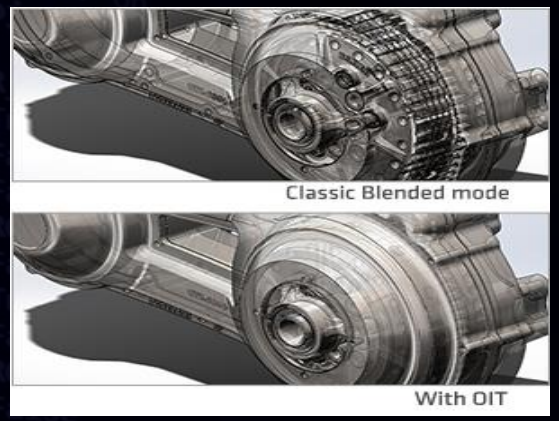
Long-term commitment to performance optimization for professional applications

Reliability | **Performance** | **Innovation**

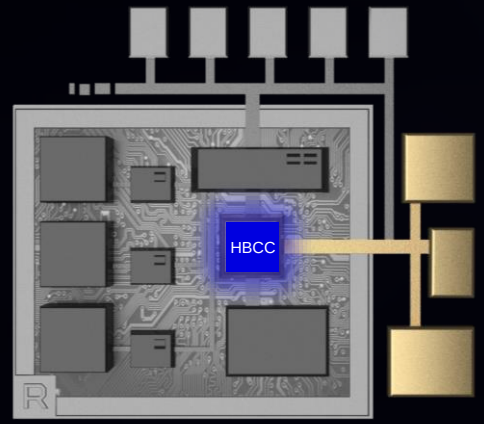
Radeon ProRender



Order-Independent Transparency



High Bandwidth Cache Controller



AMD FREESYNC TECHNOLOGY

Vulkan KHRONOS INDUSTRY FORGED

GPUOpen

ROCm ON

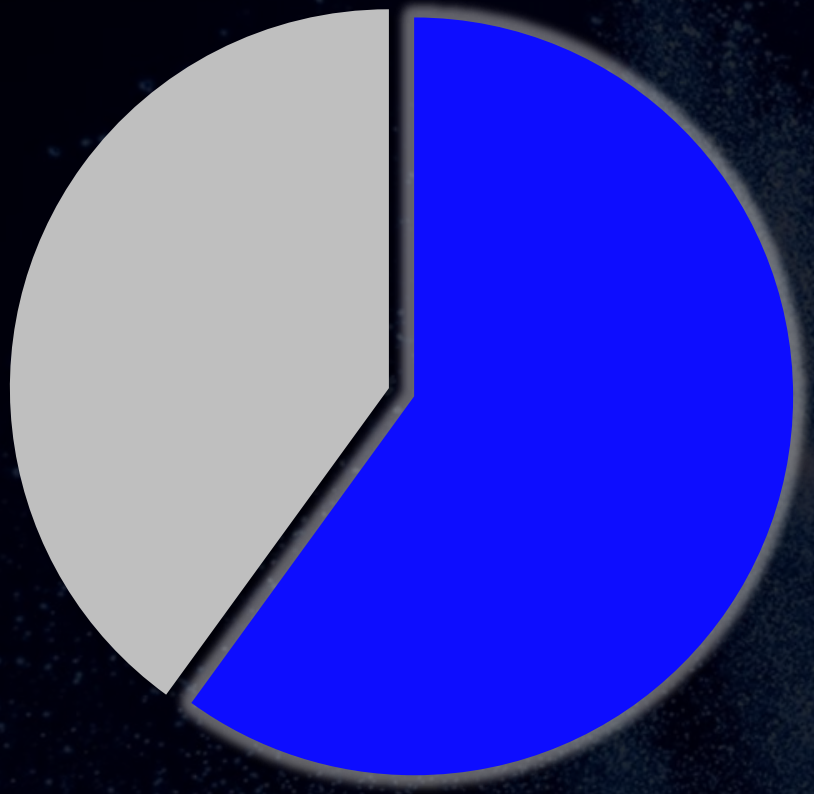
MxGPU

Reliability

Performance

Innovation

Focus Markets for Radeon Pro



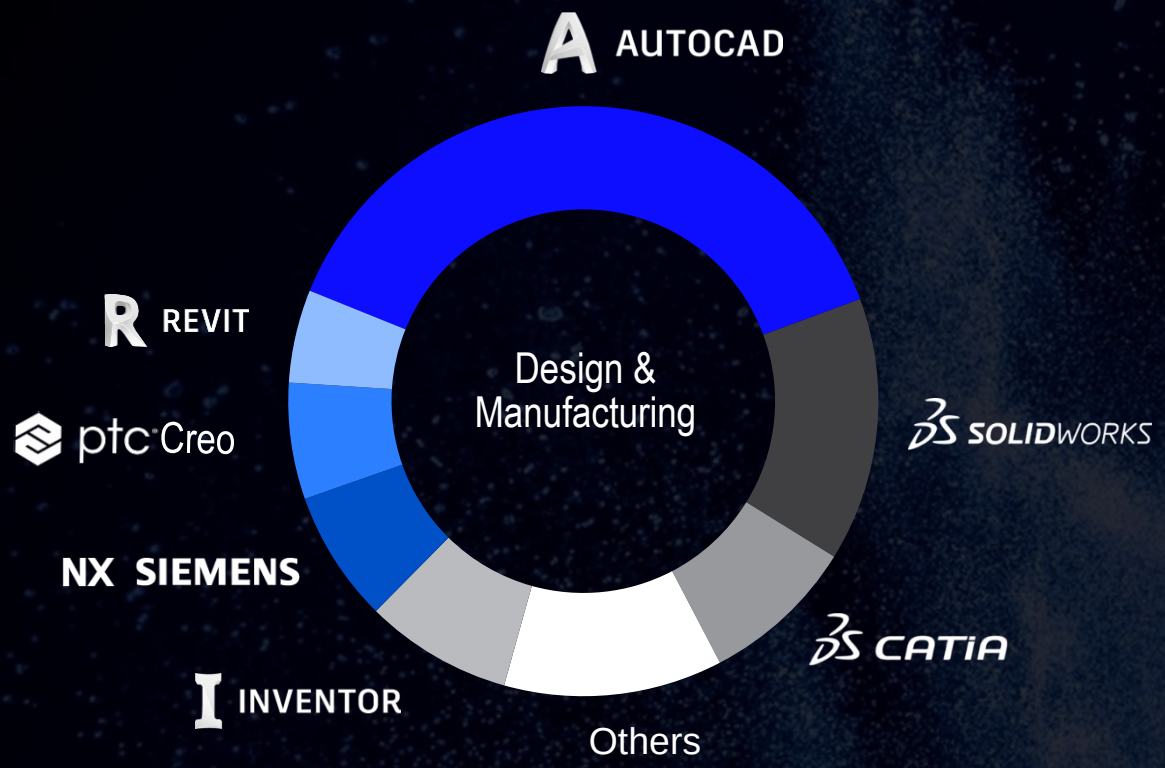
CAD & Engineering and Media & Entertainment applications account for

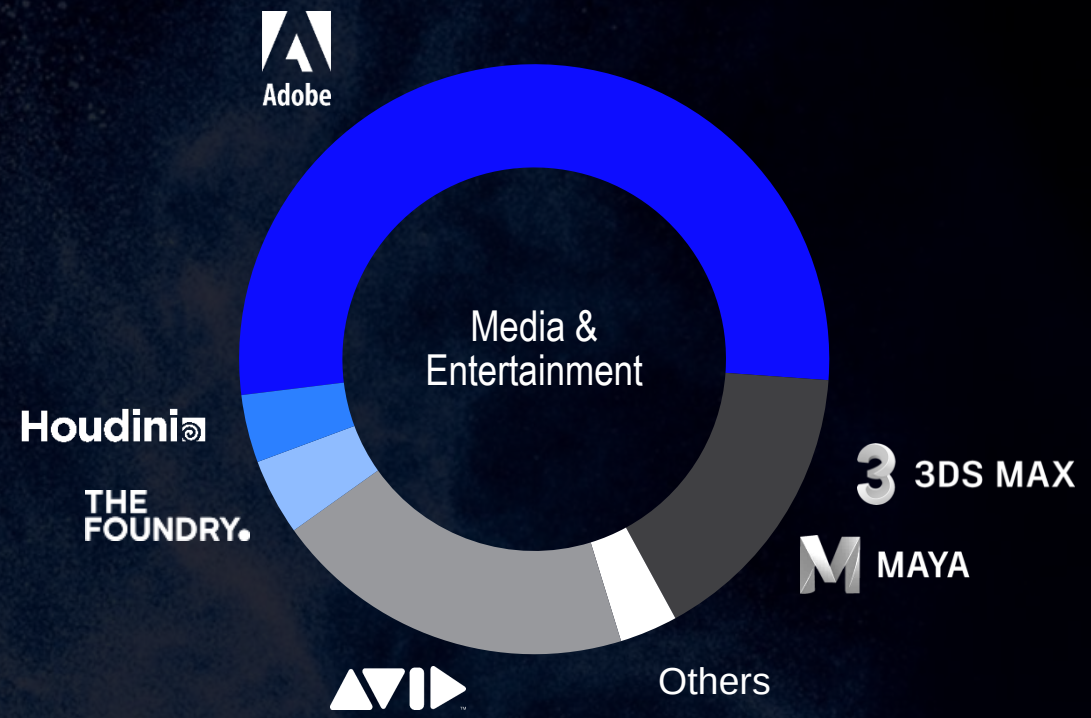
60%

of total user seats in the professional PC market.

Leading ISVs by Segment

AMD is Tested on the Leading ISV Applications Professionals Use





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Product Overview

Radeon Pro WX Family

Cutting Edge

RADEON PRO WX 9100

Performance

RADEON PRO WX 5100

RADEON PRO WX 7100

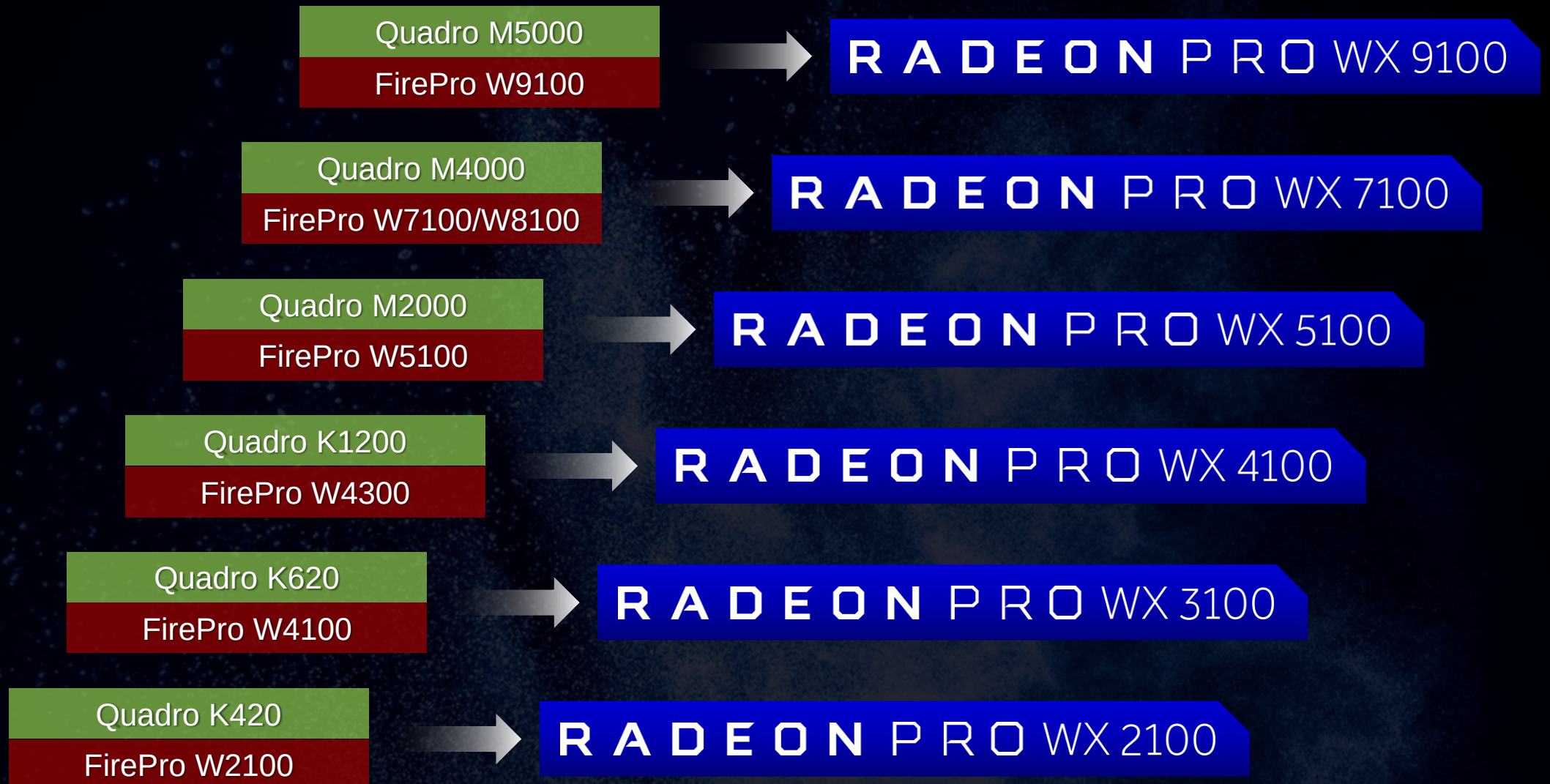
Essential

RADEON PRO WX 2100

RADEON PRO WX 3100

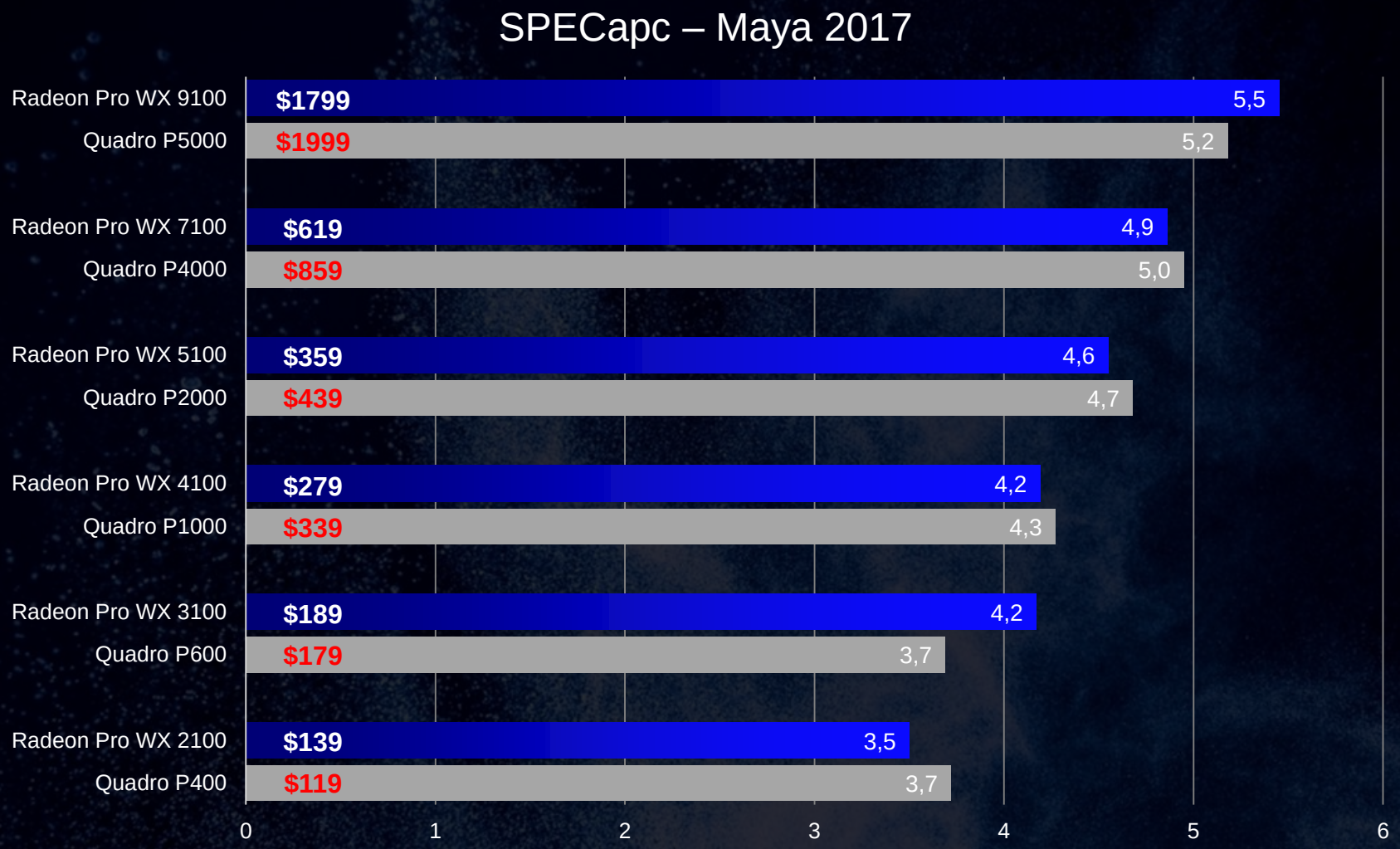
RADEON PRO WX 4100

Radeon Pro WX Upgrade Path



Radeon Pro WX Competitive Positioning

Real World Application Performance



RADEON PRO WX 9100

RADEON VR READY CREATOR

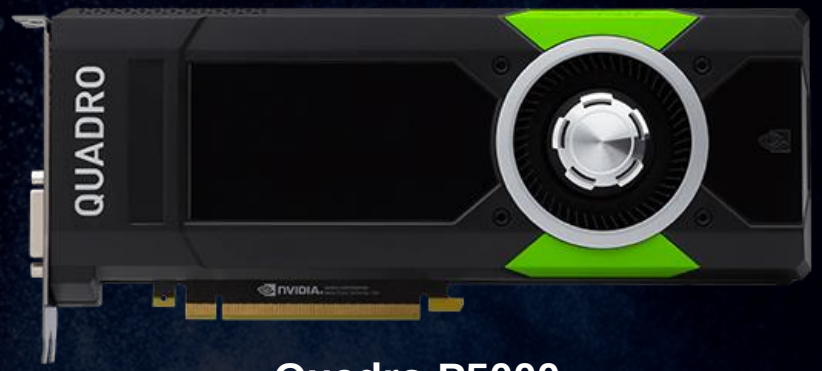
64	16 GB	12.2 TFLOPS	484 GB/s	230 W
NEXT-GEN COMPUTE UNITS	HBM2 ECC MEMORY	PEAK FP32 PERFORMANCE	MEMORY BANDWIDTH	MAX BOARD POWER

Radeon Pro WX 9100 Specifications

GPU Architecture	Vega
Stream Processors	4096
Peak FP16 Throughput	24.6 TFLOPS
Peak FP32 Throughput	12.3 TFLOPS
Peak FP64 Throughput	768 GFLOPS
Memory Size/Type	16GB HBM2 w/ ECC
Memory Bandwidth	484 GB/s
Display Connectors	6x Mini-DisplayPort 1.4
API Support	DirectX® Feature Level 12_1 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	230 W
Form Factor	Full Height, Dual Slot 10.5” Length

Radeon Pro WX 9100

Handle the most demanding workflows with ease



Radeon Pro WX 9100		Quadro P5000
12.3 TFLOPS	Peak FP32 Performance	8.9 TFLOPS
484 GB/s	Memory Bandwidth	288 GB/s
16 GB	Memory Size	16 GB
6x Mini-DP	Display Outputs	4x DP, 1x DVI

$2199 MSRP
$1799 SEP

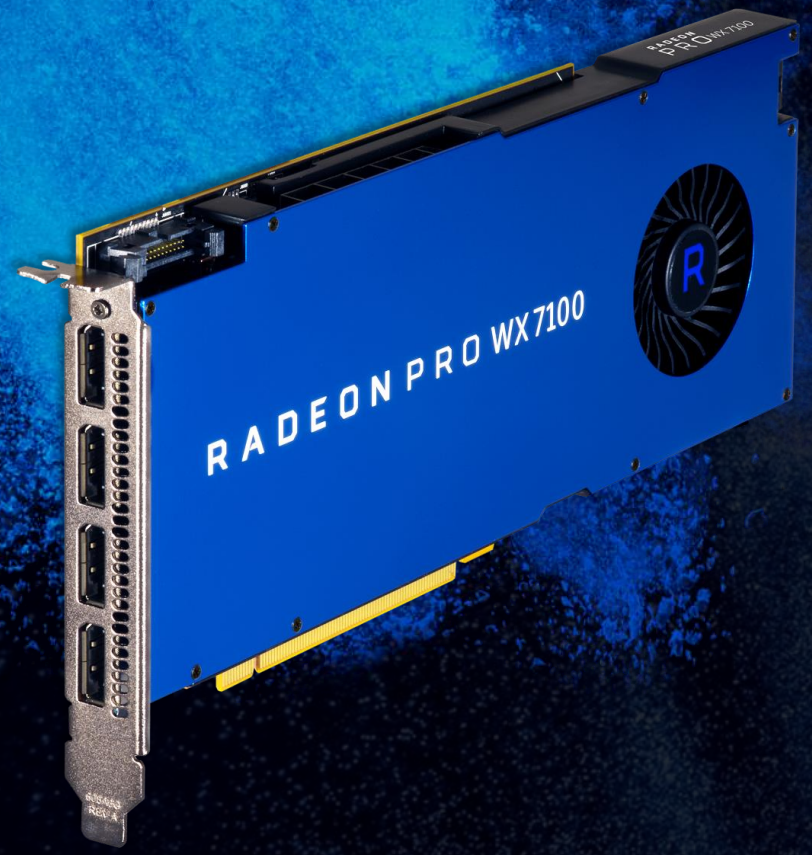
$2499 MSRP
$1999 SEP

RADEON PRO WX7100

RADEON VR READY CREATOR

36	8 GB	5.7 TFLOPS	224 GB/s	130 W
GCN COMPUTE UNITS	GDDR5 MEMORY	PEAK FP32 PERFORMANCE	MEMORY BANDWIDTH	MAX BOARD POWER

Radeon Pro WX 7100 Specifications



GPU Architecture	Polaris
Stream Processors	2304
Peak FP16 Throughput	5.7 TFLOPS
Peak FP32 Throughput	5.7 TFLOPS
Peak FP64 Throughput	358 GFLOPS
Memory Size/Type	8GB GDDR5
Memory Bandwidth	224 GB/s
Display Connectors	4x DisplayPort 1.4
API Support	DirectX® Feature Level 12_0 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	130 W
Form Factor	Full Height, Single Slot 9.5” Length

Radeon Pro WX 7100

Ready for tomorrow's VR workflows

	Radeon Pro WX 7100		Quadro P4000	
	5.73 TFLOPS	Peak FP32 Performance	5.30 TFLOPS	
$799 MSRP $619 SEP	224 GB/s	Memory Bandwidth	243 GB/s	$1249 MSRP $859 SEP
	8 GB	Memory Size	8 GB	
	4x DP	Display Outputs	4x DP	

RADEON PRO WX 5100

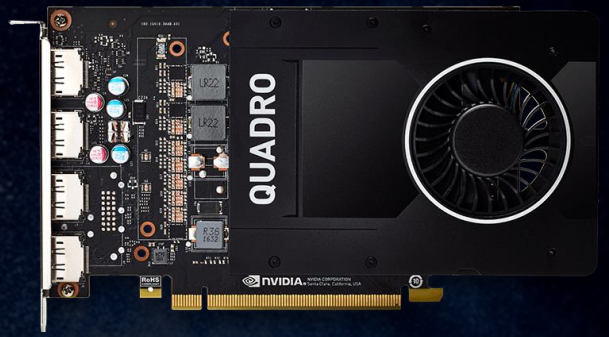
28	8 GB	3.9 TFLOPS	160 GB/s	75 W
GCN COMPUTE UNITS	GDDR5 MEMORY	PEAK FP32 PERFORMANCE	MEMORY BANDWIDTH	MAX BOARD POWER

Radeon Pro WX 5100 Specifications

GPU Architecture	Polaris
Stream Processors	1792
Peak FP16 Throughput	3.9 TFLOPS
Peak FP32 Throughput	3.9 TFLOPS
Peak FP64 Throughput	243 GFLOPS
Memory Size/Type	8GB GDDR5
Memory Bandwidth	160 GB/s
Display Connectors	4x DisplayPort 1.4
API Support	DirectX® Feature Level 12_0 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	75 W
Form Factor	Full Height, Single Slot 6.8” Length

Radeon Pro WX 5100

Ready for the game engine revolution in CAD

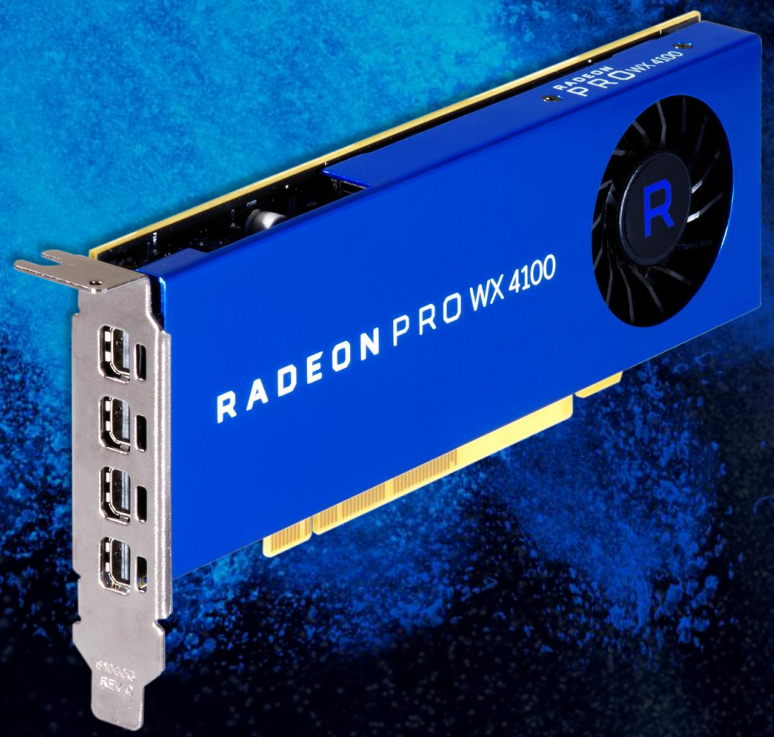


	Radeon Pro WX 5100		Quadro P2000
	3.89 TFLOPS	Peak FP32 Performance	3.00 TFLOPS
$499 MSRP $359 SEP	160 GB/s	Memory Bandwidth	140 GB/s	$599 MSRP $439 SEP
	8 GB	Memory Size	5 GB
	4x DP	Display Outputs	4x DP

RADEON PRO WX 4100

16	4 GB	2.5 TFLOPS	96 GB/s	50 W
GCN COMPUTE UNITS	GDDR5 MEMORY	PEAK FP32 PERFORMANCE	MEMORY BANDWIDTH	MAX BOARD POWER

Radeon Pro WX 4100 Specifications



GPU Architecture	Polaris
Stream Processors	1024
Peak FP16 Throughput	2.4 TFLOPS
Peak FP32 Throughput	2.4 TFLOPS
Peak FP64 Throughput	154 GFLOPS
Memory Size/Type	4GB GDDR5
Memory Bandwidth	96 GB/s
Display Connectors	4x Mini-DisplayPort 1.4
API Support	DirectX® Feature Level 12_0 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	50 W
Form Factor	Low Profile, Single Slot 6.6” Length

Radeon Pro WX 4100

Superior graphics performance for small form factor workstations

Radeon Pro WX 4100

$399 MSRP
$279 SEP

Quadro P1000

$449 MSRP
$339 SEP

Radeon Pro WX 4100		Quadro P1000
2.46 TFLOPS	Peak FP32 Performance	1.89 TFLOPS
96 GB/s	Memory Bandwidth	80 GB/s
4 GB	Memory Size	4 GB
4x Mini-DP	Display Outputs	4x Mini-DP

RADEON PRO WX 3100

8	4 GB	1.2 TFLOPS	96 GB/s	50 W
GCN COMPUTE UNITS	GDDR5 MEMORY	PEAK FP32 PERFORMANCE	MEMORY BANDWIDTH	MAX BOARD POWER

Radeon Pro WX 3100 Specifications

GPU Architecture	Polaris
Stream Processors	512
Peak FP16 Throughput	1.2 TFLOPS
Peak FP32 Throughput	1.2 TFLOPS
Peak FP64 Throughput	78 GFLOPS
Memory Size/Type	4GB GDDR5
Memory Bandwidth	96 GB/s
Display Connectors	2x Mini-DisplayPort 1.4 1x DisplayPort 1.4
API Support	DirectX® Feature Level 12_0 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	50 W
Form Factor	Low Profile, Single Slot 6.6” Length

Radeon Pro WX 3100

Redefining entry level workstation graphics

	Radeon Pro WX 3100		Quadro P600	
$199 MSRP $189 SEP	1.25 TFLOPS	Peak FP32 Performance	1.20 TFLOPS	$199 MSRP $179 SEP
	96 GB/s	Memory Bandwidth	64 GB/s	
	4 GB	Memory Size	2 GB	
	2x Mini-DP, 1x DP	Display Outputs	4x Mini-DP	

RADEON PRO WX 2100

8	2 GB	1.2 TFLOPS	48 GB/s	35 W
GCN COMPUTE UNITS	GDDR5 MEMORY	PEAK FP32 PERFORMANCE	MEMORY BANDWIDTH	MAX BOARD POWER

Radeon Pro WX 2100 Specifications

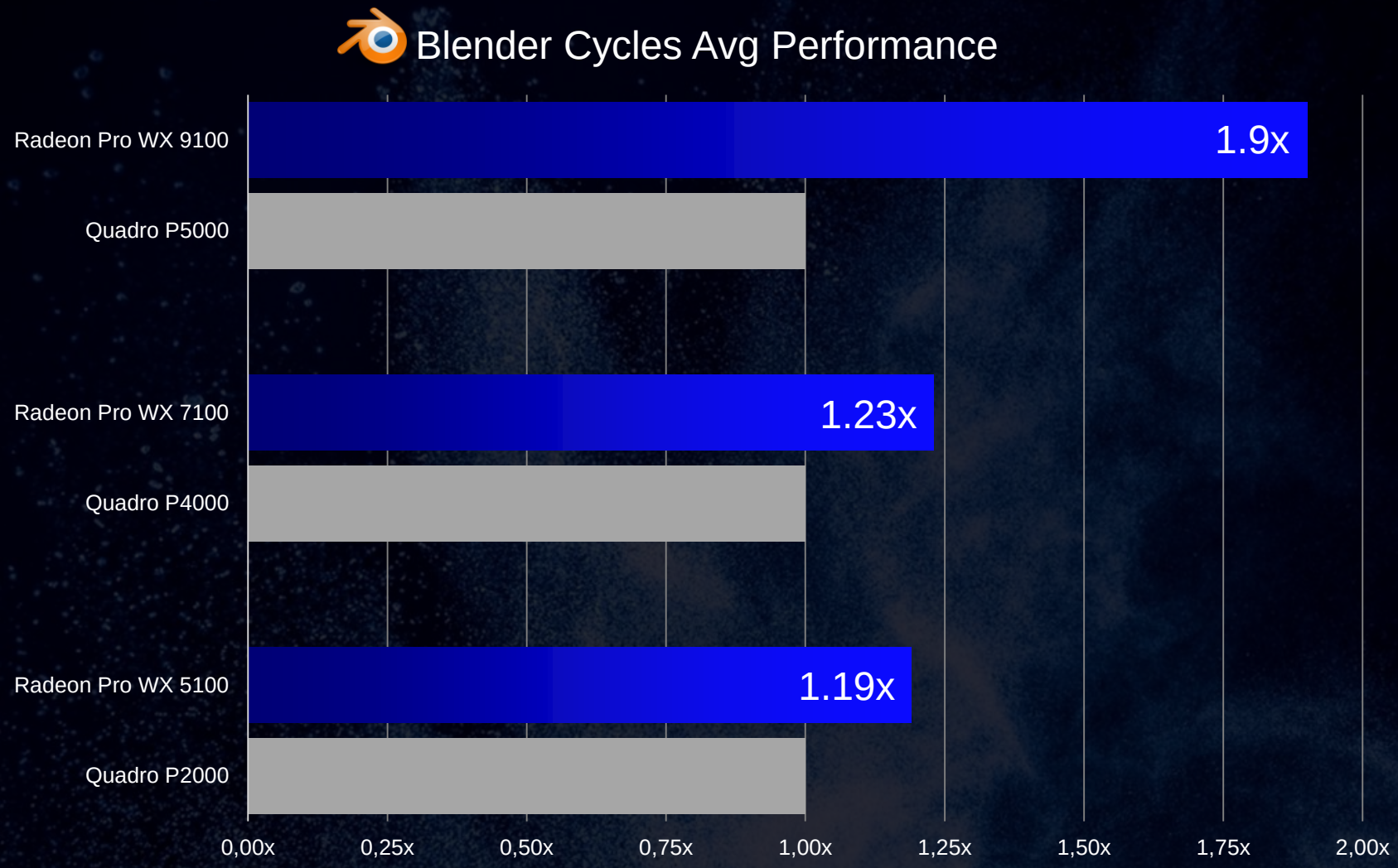
GPU Architecture	Polaris
Stream Processors	512
Peak FP16 Throughput	1.2 TFLOPS
Peak FP32 Throughput	1.2 TFLOPS
Peak FP64 Throughput	78 GFLOPS
Memory Size/Type	2GB GDDR5
Memory Bandwidth	48 GB/s
Display Connectors	2x Mini-DisplayPort 1.4 1x DisplayPort 1.4
API Support	DirectX® Feature Level 12_0 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	35 W
Form Factor	Low Profile, Single Slot 6.6” Length

Radeon Pro WX 2100

Affordable professional-grade workstation graphics solution

	Radeon Pro WX 2100		Quadro P400	
$149 MSRP $139 SEP	1.25 TFLOPS	Peak FP32 Performance	0.64 TFLOPS	$169 MSRP $119 SEP
	48 GB/s	Memory Bandwidth	32 GB/s	
	2 GB	Memory Size	2 GB	
	2x Mini-DP, 1x DP	Display Outputs	3x Mini-DP	

Importance of Compute Performance



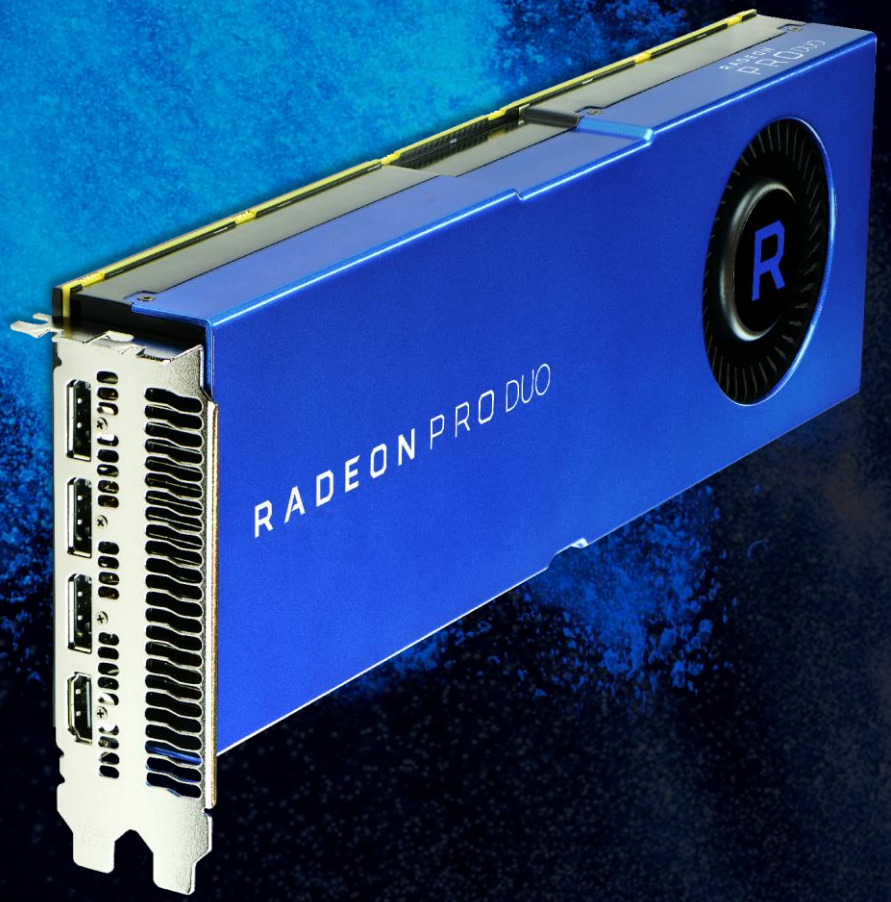
Radeon Pro Duo

Divide. Accelerate. Create.

"With the Radeon Pro Duo, visual effects artists have the ability to composite extremely complex scenes in Nuke, and then jump into a 3D application like Maya or 3ds Max to create or tweak the asset, export back to Nuke or simultaneously open Mari for texture painting – the iteration process becomes that much more intuitive. The Pro Duo can handle these varied tasks without missing a beat!"

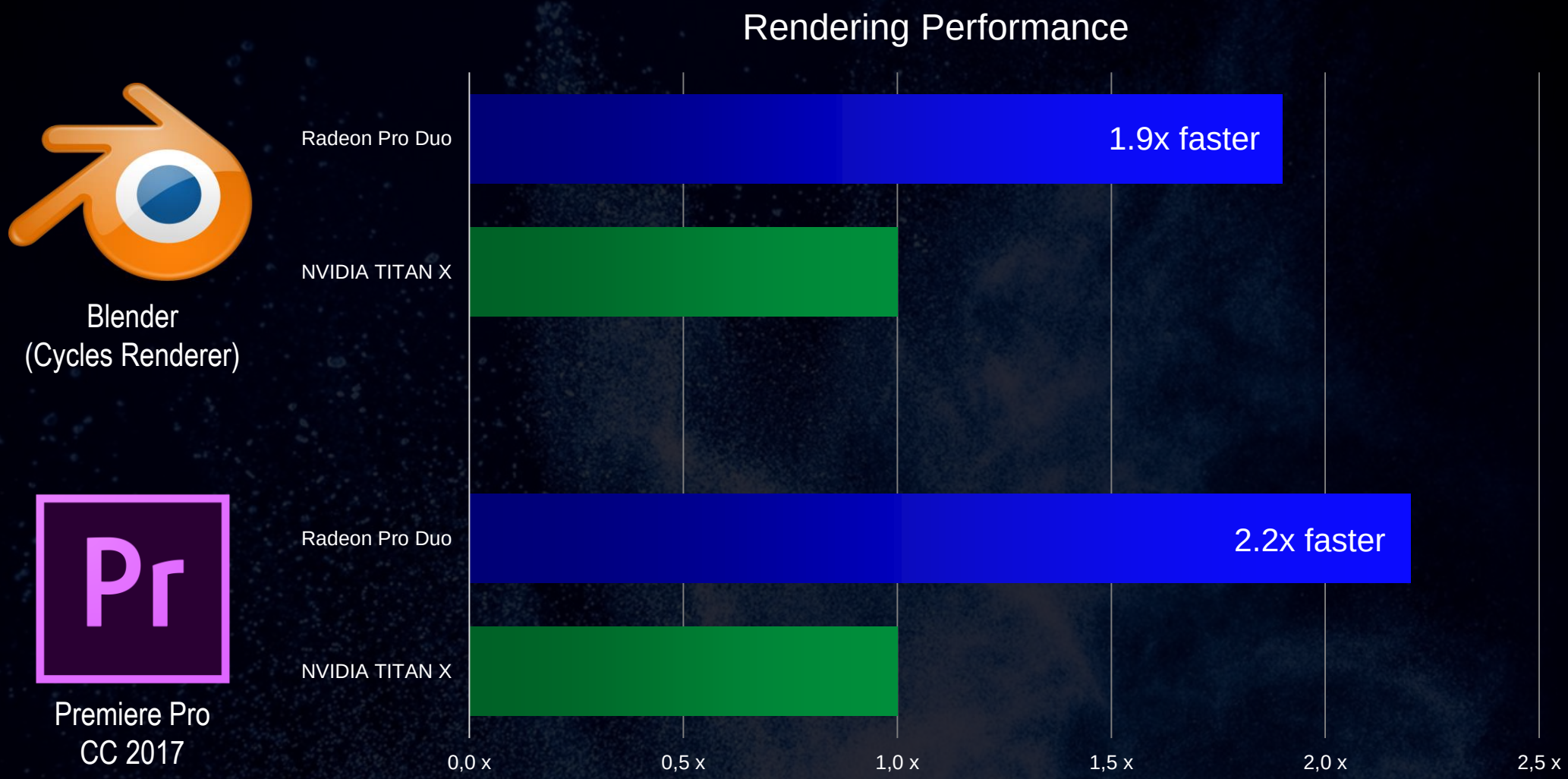
Kynan Stephenson
Freelance Artist

Radeon Pro Duo Specifications

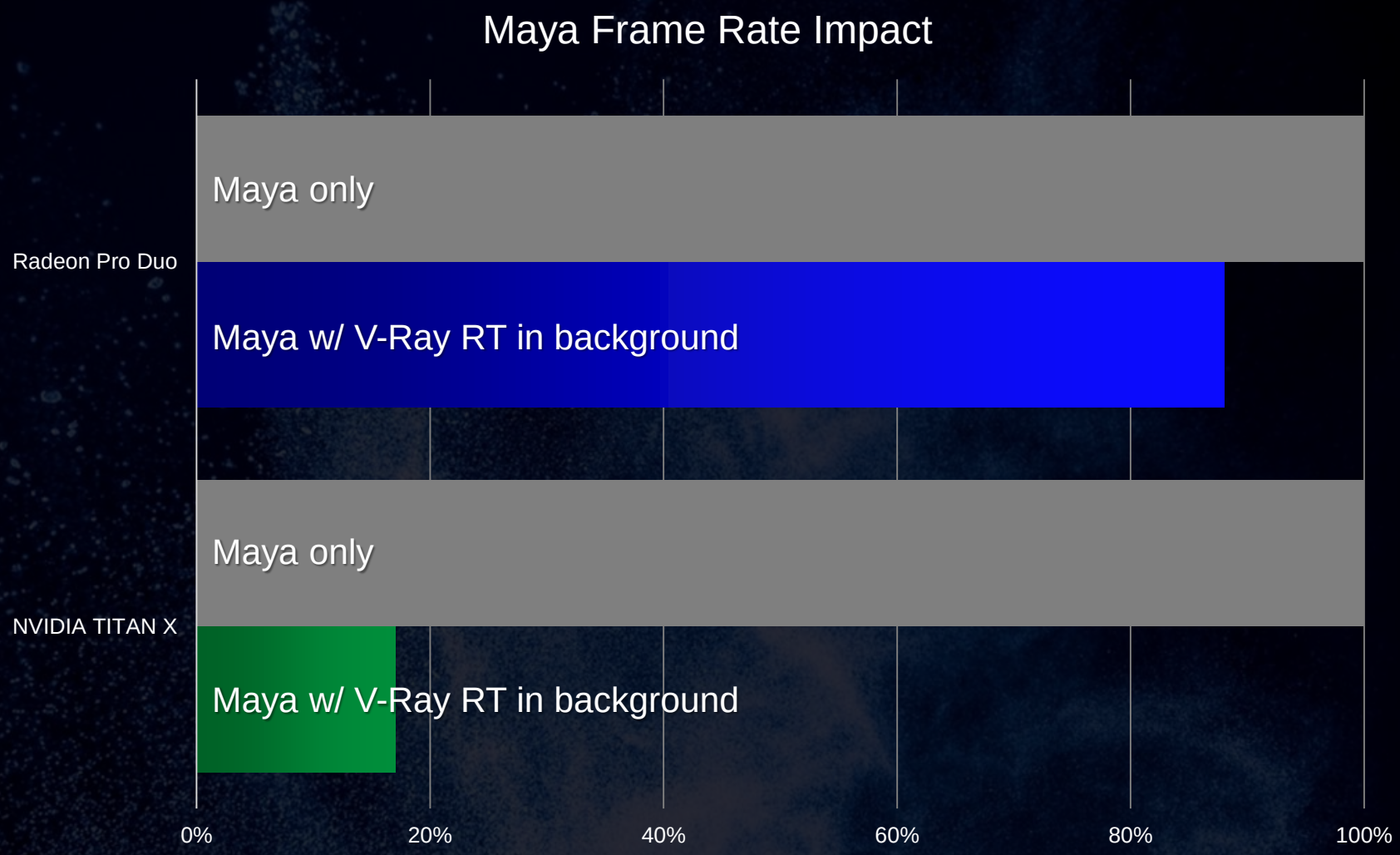


GPU Architecture	Polaris
Stream Processors	4608 (2x2304)
Peak FP16 Throughput	11.5 TFLOPS
Peak FP32 Throughput	11.5 TFLOPS
Peak FP64 Throughput	716 GFLOPS
Memory Size/Type	32GB GDDR5
Memory Bandwidth	448GB/s
Display Connectors	3x DisplayPort 1.4 1x HDMI 2.0
API Support	DirectX® Feature Level 12_0 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	250 W
Form Factor	Full Height, Dual Slot 12.0” Length

Radeon Pro Duo: MGPU Acceleration

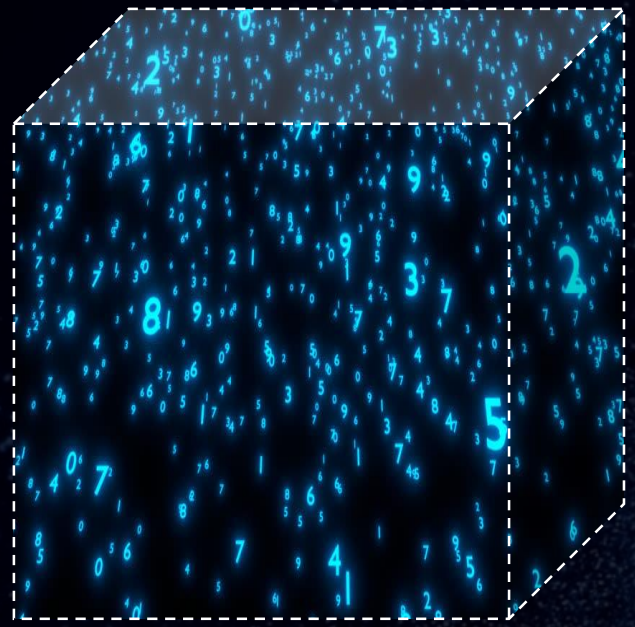


Radeon Pro Duo: Simultaneous Workloads

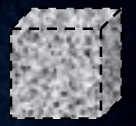


A Growing Challenge

Working Assets
(Terabytes)



GPU Cache
(Gigabytes)

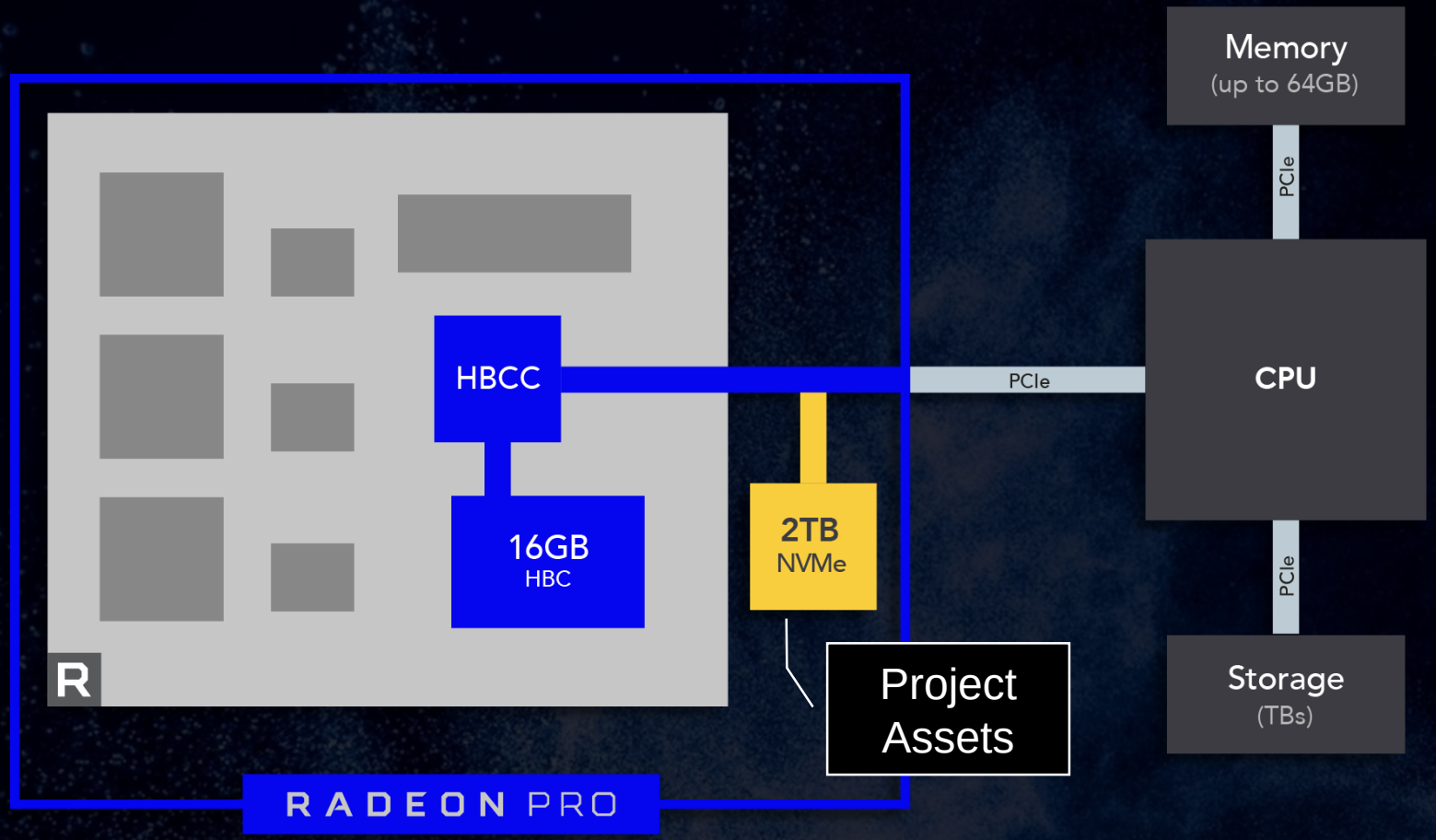


Virtually unlimited asset storage capacity

Asset size vastly outpaces cache capacity

Ever-growing demand for larger assets

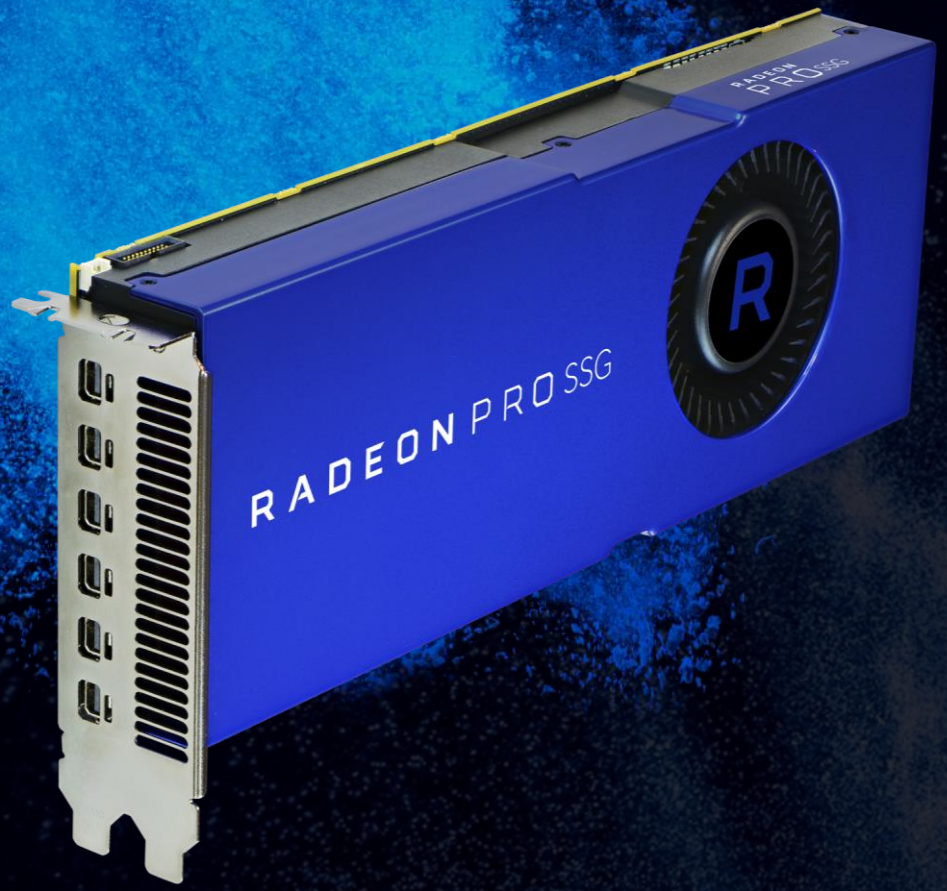
Radeon Pro SSG Technology



SSG – a fundamental change


RADEON PRO SSG
Expanding the Possibilities
Large Dataset Rendering
Scientific Visualization
Medical Imaging
Oil and Gas
Deep Learning

Radeon Pro SSG Specifications



GPU Architecture	Vega
Stream Processors	4096
Peak FP16 Throughput	24.6 TFLOPS
Peak FP32 Throughput	12.3 TFLOPS
Peak FP64 Throughput	768 GFLOPS
Memory Size/Type	16GB HBM2 w/ ECC 2TB NVMe
Memory Bandwidth	484 GB/s
Display Connectors	6x Mini-DisplayPort 1.4
API Support	DirectX® Feature Level 12_1 OpenGL® 4.5 OpenCL™ 2.0 Vulkan™ 1.0
Typical Board Power	260 W
Form Factor	Full Height, Dual Slot 10.5” Length

Radeon Pro Family

RADEON PRO DUO

2x “Polaris10” GPUs

11.4 TFLOPS, 32GB GDDR5

Simultaneous design & visualization

RADEON PRO SSG

“Vega” GPU Architecture

16GB HBM2 + 2TB SSG

Revolutionize large dataset workflows

Partnered for Success

RADEON PRO

Lenovo

FUJITSU

BOXX Technologies

Next Computing

Schneider Digital

Bluechip

Exxact

Puget Systems

Wortmann

NTSI

Velocity Micro

InoNet

Orbital Computers

TAROX

XI-Machines

Radeon Pro Software

Software Stability

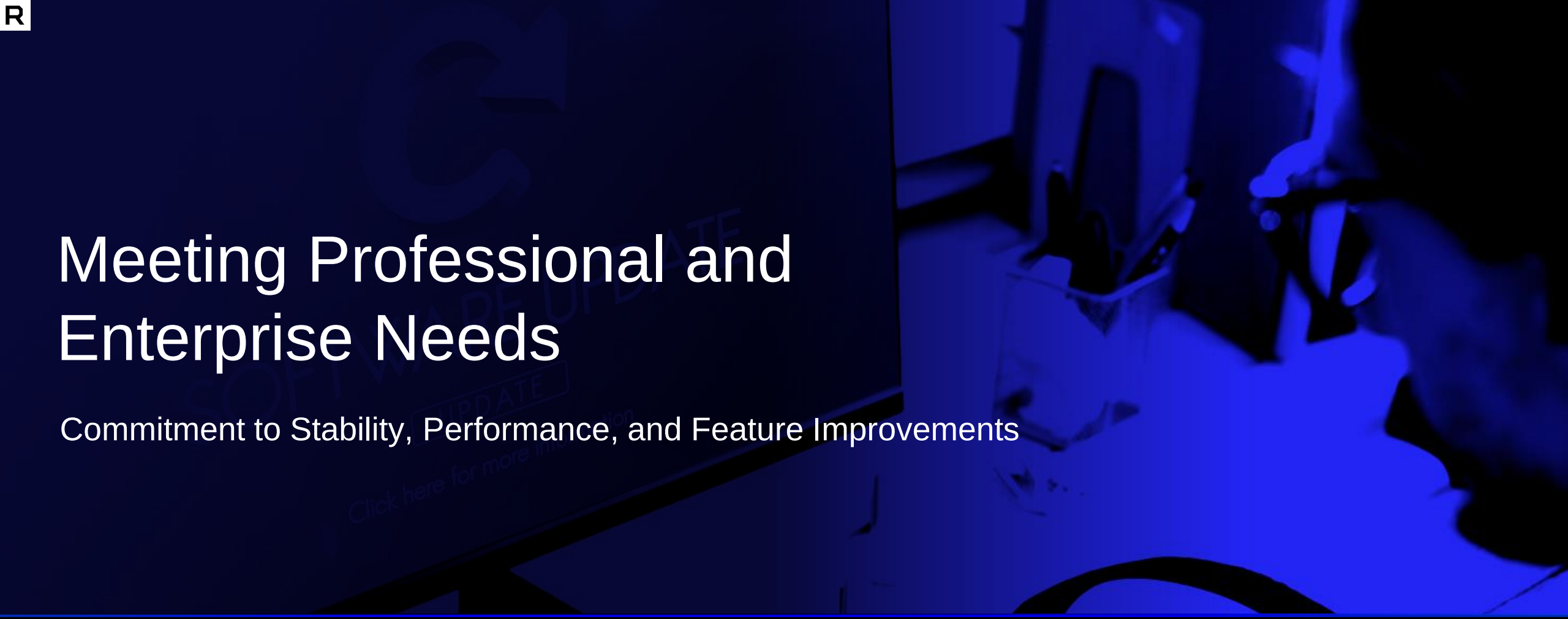
Unprecedented Driver Quality

2X
More OEM Platform Testing*

3X
More ISV Certification Testing*

1.5X
More Stress Testing*

*AMD internal data, testing of Radeon Pro 16.Q4 Enterprise Driver compared to FirePro™ 14.502.1019 driver.



Meeting Professional and Enterprise Needs

Commitment to Stability, Performance, and Feature Improvements

Quarterly Releases

Longevity, Stability and Performance

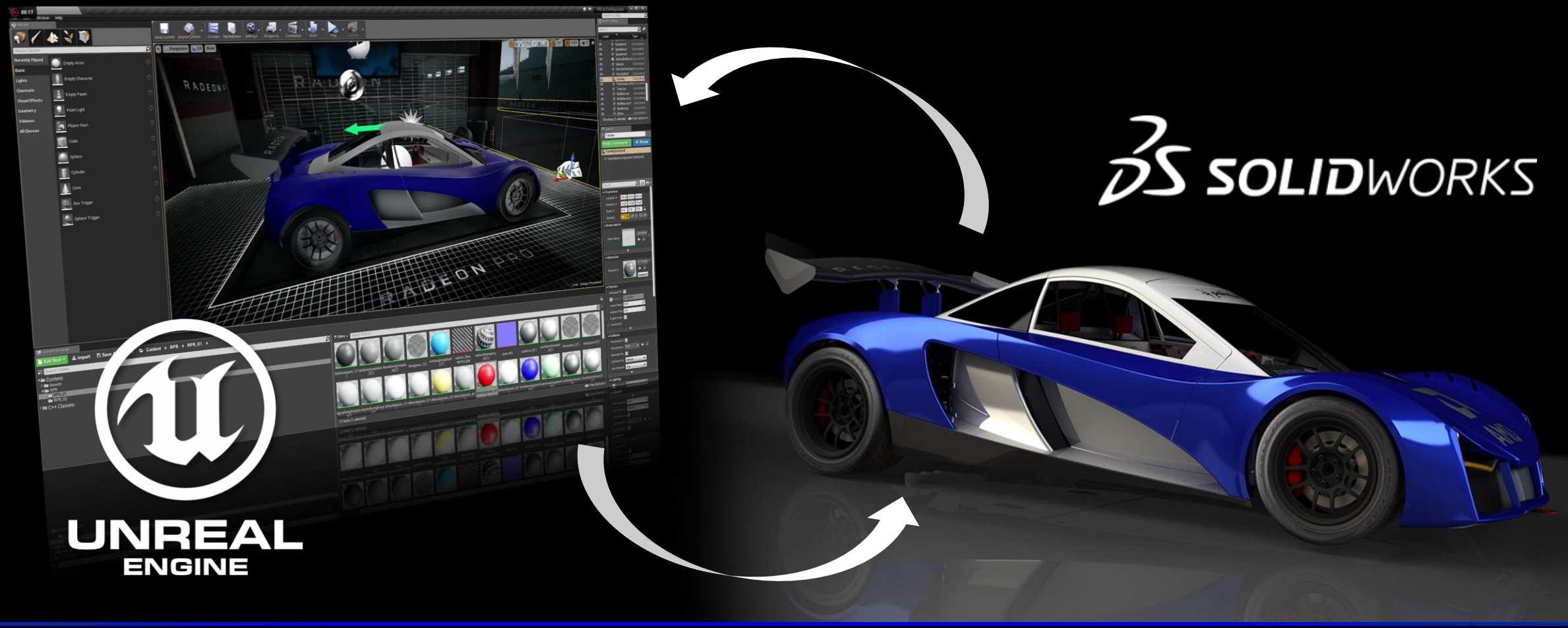
Prioritized Support

RADEON

ProRender

Free. Fast. Accurate.

CINEMA 4D by MAXON	AUTODESK 3DS MAX	AUTODESK MAYA	SOLIDWORKS	blender
Integrated	Plug-in	Plug-in	Add-in	Plug-in



Radeon ProRender Game Engine Importer

(Beta)

RADEON PRO

ReLive

Capture and Record Processional Workflows

Collaboration & Presentation

Integration in Radeon Pro Settings

Free, with No Registration Required

FREE

Optimized for Performance & Quality

Work. Swap. Play.

Enjoy Full Gaming Features on Professional GPUs

RADEON Software

Switch Between Up to Three Drivers

Work and Play on the Same System


One Driver
Unified enterprise driver for all Radeon™ GPUs


RADEON
TECHNOLOGIES GROUP

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BACKUP

Channel Product Lifecycle

Product	Part Number	First Ship	Last Buy	Last Ship
Radeon Pro WX 9100	100-505957			
Radeon Pro WX 7100	100-505826	11/1/2016	9/30/2019	12/31/2019
Radeon Pro WX 5100	100-505940	11/1/2016	9/30/2019	12/31/2019
Radeon Pro WX 4100	100-506008	11/1/2016	9/30/2019	12/31/2019
Radeon Pro WX 3100	100-505999	5/24/2017	4/1/2020	7/1/2020
Radeon Pro WX 2100	100-506001	5/24/2017	4/1/2020	7/1/2020
Radeon Pro Duo	100-506048	8/30/2017	5/30/2019	8/30/2019
Radeon Pro SSG	100-506014			
FirePro W9100 32GB	100-505989	1/1/2016	4/30/2019	8/30/2019
FirePro W8100	100-505976	6/1/2014	4/30/2018	8/30/2018
FirePro W7100	100-505975	12/1/2014	9/1/2017	12/1/2017
FirePro W5100	100-505974	9/2/2014	9/1/2017	12/1/2017
FirePro W4300	100-505973	3/1/2016	9/1/2017	12/1/2017
FirePro W4100	100-505979	9/2/2014	9/1/2017	12/1/2017
FirePro W2100	100-505980	8/1/2014	12/31/2017	3/31/2018