Accelerating node-based digital compositing

Foundry Nuke®

AMD

New to Nuke?

At the heart of Foundry Nuke® is a fast and powerful node based shot compositing feature-set. It is used by all sizes of studios, from small to large, with Nuke® being used on almost every Academy Award® film nominated in the Best Visual Effects category for over a decade. As a result, Nuke® is considered within the industry as an essential tool for open and flexible compositing pipelines. Its robust toolset offers modern production teams speed and efficiency via GPU accelerated nodes.

Foundry Nuke® runs on all major platforms, with support for multiple GPUs, and eGPU (addon external GPU boxes) also being supported.

How to accelerate Nuke®

While Foundry Nuke® has low hardware entry requirements, several of its advanced nodes and workflows are GPU accelerated. Nuke® can also support multiple GPU processing between all the available GPUs. The basic requirements for a GPU with Nuke® are 512mb of dedicated memory[1]. The powerful, yet affordable Radeon™ Pro VII GPU leaps past this with 30x that amount of onboard RAM, while also being supercharged with HBM2. A balanced system is recommended for reduced I/O bottlenecks.

The secret of larger workloads

The Radeon™ Pro VII GPU is unique in that it brings extreme amounts of memory bandwidth to Nuke® users. The exceptional 1TB/s of bandwidth when combined with ultra-fast PCIe® 4.0 (x16) support ensures that many of today's 4K and 8K project bottlenecks are crushed.

"The specs of new AMD Radeon Pro VII graphics card are promising for improving performance of GPU accelerated features in the Nuke family of compositing and review tools, and we look forward to supporting the Radeon Pro VII."

Christy Anzelmo, Director of Product - Compositing and Finishing, Foundry

Applying effects faster

Nuke® uses shader and compute cores of a GPU to calculate effects faster. The more powerful a GPU, the faster these effects can be applied. Take the common task of applying a MotionBlur node as an example, where each pixel is evaluated relative to the next and a calculation based on a physical lens has to be applied to the shot. These types of effects are where a more powerful GPU with excellent memory bandwidth is significantly noticeable. The Radeon™ Pro VII GPU easily answers this challenge, with the GPU architecture being used in some of the world's fastest supercomputers.

The new standard for node-based digital compositing

Powered by the 7nm "Vega" architecture, 16GB of high-speed HBM2 memory, and support of up to six display outputs, the AMD Radeon™ Pro VII GPU delivers exceptional UHD and 8K high-resolution experiences. Access to the latest hardware on the Radeon™ Pro VII GPU brings greater nodegraph interactivity and media playback in Foundry Nuke®.

NUKE®

AMD RADEON PRO VII

Support for remote working

The AMD Radeon™ Pro VII supports the GPU-accelerated experience of AMD Remote Workstation[3] allowing you to access your physical workstation from virtually anywhere for unhindered productivity, with the remote workstation IP built into AMD Radeon™ Pro Software for Enterprise driver.

This Radeon Pro VII graphics driver delivers enterprise-grade stability, performance, security features, and innovative features, including high-resolution screen capture, recording, and video streaming.

amd.com/RadeonProSoftware

OVER
1 TB/s
BANDWIDTH FOR MEMORY INTENSIVE WORKLOADS

UP TO
16GB HBM2
MEMORY FOR LARGE MEDIA PROJECTS

SUPPORT FOR
6x Panels
VIA MINI-DISPLAYPORT™ 1.4

DEDICATED
Encode & decode
VIDEO ACCELERATION[1]

RELATIVE PERFORMANCE IN IDENTICAL WORKLOADS[2].	100%
DENOISE: Tool for removing noise or grain from footage, without losing image quality	UP TO -25% PERFORMANCE
MOTION BLUR: Tool for removing noise or grain from footage, without losing image quality.	UP TO -15% PERFORMANCE
SMART VECTOR: Writes motion vectors to the .exr format, which are then used to drive the vector distortion nodes.	UP TO -16% PERFORMANCE
CHROMA KEYER: Green and bluescreen keyer that can take advantage of the local GPU.	UP TO -14% PERFORMANCE

Benchmark overview

The "Vega" chip architecture of the Radeon™ Pro VII is ideally suited to different codecs, projects and workflows when the GPU is placed under large task and resolution stresses. In this situation the large amount of Compute Units and Streams of the ultra-fast GPU ensure project interactivity remains.

RTX 5000
NVIDIA Quadro® RTX 5000 with Optimal Driver for Enterprise (442.5).

Radeon Pro VII
AMD Radeon™ Pro VII with AMD Radeon™ Software for Enterprise 20.Q2 Pre-Release version.

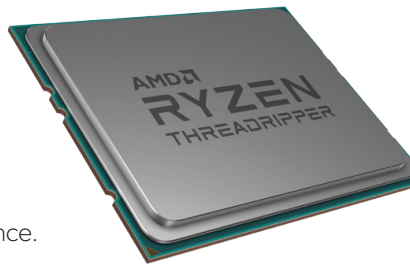
Why AMD:

AMD is proud to power the graphics behind many world-class workstations and mobile solutions, be at the heart of major games consoles beloved for gameplay and streaming video entertainment, to powering some of the worlds fastest supercomputers for research, to driving business laptop performance. AMD already touches many areas of your life.

amd.com

Looking for a CPU too?

AMD processors are an excellent choice for powerful workstations, with Ryzen™ Threadripper™ processors offering blazing fast, multi-core workstation performance.



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

[1] Source for hardware requirements https://www.foundry.com/products/nuke/requirements

[2] RPW-309: Testing as of April 02, 2020 by AMD Performance Labs on a production test system comprised of an Intel® Xeon® W-2125, 32GB HBM2 RAM, Windows® 10 Pro for Workstations, 64-bit, System BIOS 1.11.1, AMD Radeon™ Pro VII, AMD Radeon™ Software for Enterprise 20.Q2 Pre-Release version/NVIDIA Quadro® RTX, NVIDIA Quadro® Optimal Driver for Enterprise (ODE) R440 U6 (442.5) using AMD Internal Benchmark for Nuke 12.1. Results may vary. RPW-309

[3] Learn more at https://www.amd.com/en/technologies/remote-workstation.

[4] HEVC (H.265), H.264, and VP9 acceleration are subject to and not operable without inclusion/installation of compatible HEVC players. GD-81

AMD