Image courtesy of Altair

NVIDIA RTX SERVER ON-DEMAND POWER FOR ENGINEERING SIMULATION

GPU-accelerated Performance for CAE Workflows

Many computer-aided engineering (CAE) applications benefit greatly from the parallel processing capabilities of GPUs, which deliver significantly better price for performance than CPUs with much higher density and lower total cost of ownership. NVIDIA® Quadro RTX™ GPUs, based on the NVIDIA Turing™ GPU architecture, offer industry-leading performance to ensure engineers can set up, test, and iterate on simulations more quickly than ever before.

CAE analysts and engineers can harness the ultimate in compute power and optimize their simulation workflows with NVIDIA RTX™ Server. With RTX Server and Quadro® Virtual Data Center Workstation (Quadro vDWS), engineers can design by day and have RTX Server computing by night. RTX GPUs feature Tensor Cores and RT Cores that help certain applications compute and render CAE results faster and more physically accurate. Available from leading system partners, RTX Server delivers powerful, GPU-accelerated performance at a fraction of the cost, space, and power requirements of a CPU-based system.

FASTER SIMULATION MODELING AND PRE-PROCESSING

NVIDIA Turing provides the horsepower needed to accelerate design and CAE pre-processing.
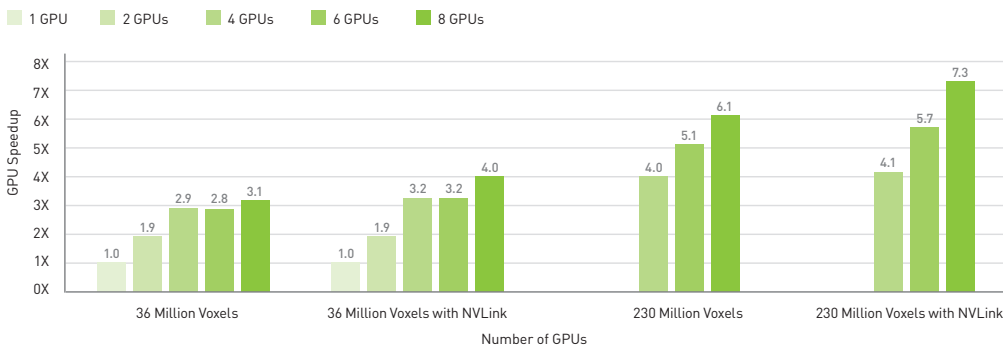
ACCELERATED SOLVING

With GPUs, CAE engineers can speed up simulation by an order of magnitude compared to CPU-only systems.

FASTER POST-PROCESSING

With RTX GPUs, CAE engineers can visualize and evaluate physically accurate simulation results more quickly.

Altair ultraFluidX™ on NVIDIA RTX Server

Tests run on a server with 2x Intel Xeon Gold 6126 Processor, 12-core CPU, Driver 430.14, 384 GB RAM, RHEL 7.6, 8x Quadro RTX 8000 with NVLink. MNUPS (million node updates per second) performance based on sample and production cases on Altair ultraFluidX.

To learn more about NVIDIA RTX Server and availability, visit **www.pny.com/rtxserver**