

NVIDIA QUADRO RTX ENABLING REAL-TIME ENGINEERING SIMULATION

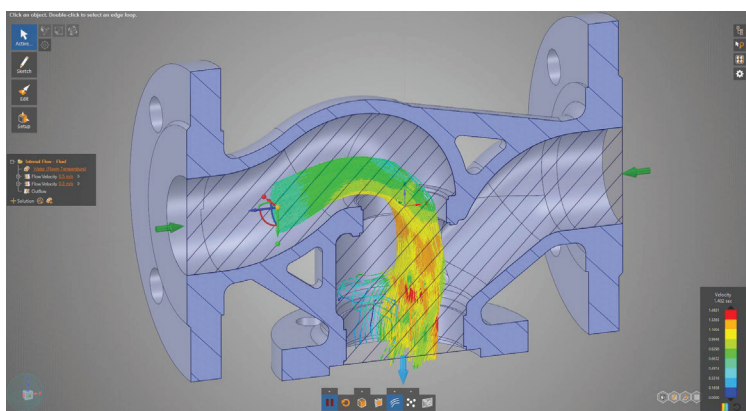
INTERACTIVE GPU-POWERED SIMULATION

Product design is poised to undergo an extraordinary enhancement to the traditional workflow with the adoption of easy-to-use engineering simulation early in the design process. Following the release of ANSYS Discovery Live (ADL), a Windows-based, CAD agnostic software tool that introduced the concept of interactively simulating during design, PTC rolled out Creo Simulation Live (CSL), a native integration of ADL's structural, modal and thermal simulation capabilities in Creo Parametric. By quickly simulating and visualizing in near real time the effects of design modifications, engineers can finally explore better product designs without worrying about slowing the design workflow.

Since both ADL and CSL are based on the NVIDIA® CUDA® parallel computing platform, they take advantage of NVIDIA GPU acceleration that scales up the NVIDIA Quadro® product line. So the more powerful the GPU, the faster the performance and the higher the fidelity. An NVIDIA GPU with a minimum of 4GB of GPU memory is required to run the software, but 8GB is recommended, as offered in the NVIDIA® Quadro RTX™ 4000 and higher.

“The Creo model’s easy-to-use interface and near instantaneous results mean our designers have much more freedom to explore design iterations as they digitally refine the product. A recent redesign of one of our products required the creation of nine physical prototypes. Using Creo Simulation Live, we could’ve reduced that by two-thirds to just three physical prototypes.”

Randy Soukup,
Engineering Systems Analyst,
Daktronics



NVIDIA QUADRO GPU_s UNLOCK THE POWER OF REAL-TIME ENGINEERING SIMULATION

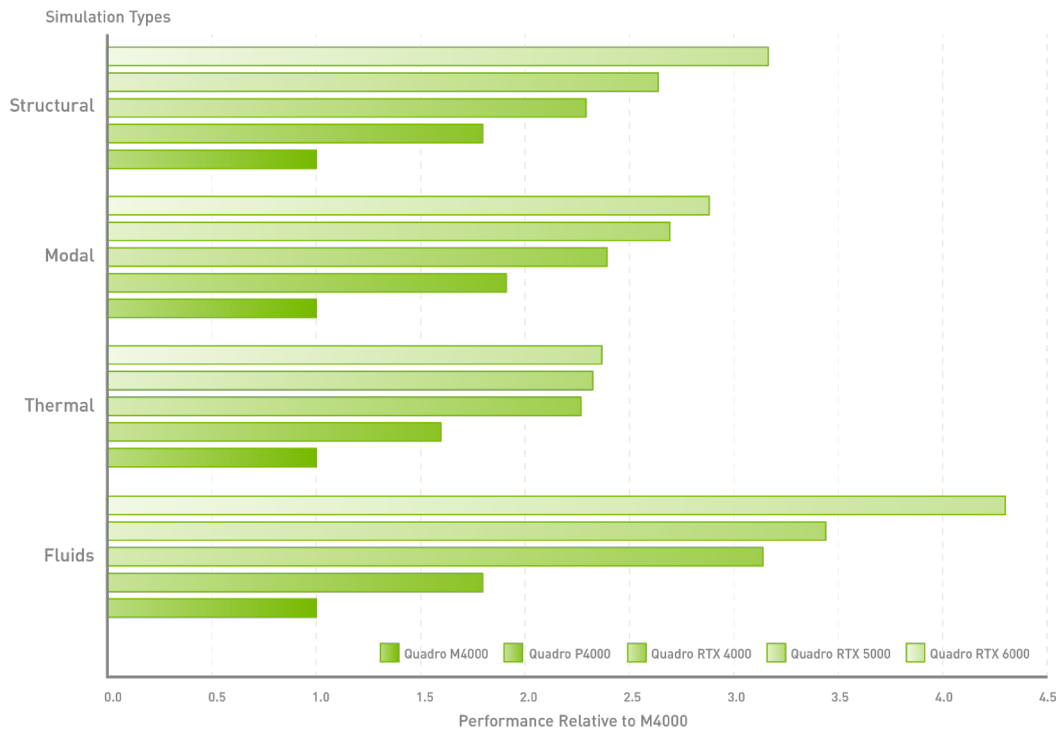
NVIDIA QUADRO RTX 4000

The Quadro RTX 4000 is powered by NVIDIA Turing™ GPU technology and features 8GB of high-performance graphics memory to enable an expansive visual workspace with quad display outputs. Work with larger models, simulate design modifications more quickly, render larger images, and create more lifelike VR experiences to maximize your design workflow.



NVIDIA CUDA Cores	2,304
NVIDIA Tensor Cores	288
NVIDIA RT Cores	36
GPU Memory	8GB GDDR6
FP32 Performance	7.1 TFLOPS

PTC CREO SIMULATION LIVE | ANSYS DISCOVERY LIVE – COMPUTE SPEEDUP



Tests run on a workstation with Intel Xeon Gold 6154 3.0GHz (3.7GHz Turbo), 18 cores, 36 threads, 24.75MB cache, 64GB RAM DDR4, Windows 10 RS4, NVIDIA Driver 417.04. Performance testing completed with a range of models for each simulation type using ANSYS Discovery Live. *Fluids only available in ADL.

“My first impression of Discovery Live was that it seemed too good to be true. But it did just what ANSYS said it would do. Previous simulations took a few hours to a day. In Discovery Live, it took only a few minutes with our Quadro GPU.”

William Villers, CTO of TEN TECH LLC

For more information about GPU-accelerated software and solutions, go to www.nvidia.com/manufacturing