



GPU-Accelerated Engineering Simulation Application to Enable Highest Quality Products for Aerospace and Other Mission Critical Fields

MSC Nastran 2012 Harnesses Power of NVIDIA GPUs to Transform Structural-Design Simulation

BEIJING -- **GTC ASIA** -- NVIDIA today announced that MSC Software Corporation, a leader in multi-discipline simulation software solutions, has launched a GPU-accelerated version of the [MSC Nastran 2012, Finite Element Analysis \(FEA\)](#) application, which is used in a wide range of engineering simulation tasks.

The new GPU-accelerated MSC Nastran 2012, available for both Windows and Linux systems, delivers performance improvements of up to 5x compared with the previous version. Users will benefit from more realistic models and higher quality simulations, opening the door to design breakthroughs for aircraft and spacecraft, and for a range of other mission critical systems.

"GPU-enabled performance improvements have the potential to transform engineering analysis and design-optimization procedures," said Dr. Ted Wertheimer, senior director of product management at MSC Software. "CUDA-based GPU acceleration in MSC Nastran 2012 will speed up performance by 1.5-5x for a range of models and industries, helping customers improve their workflow and deliver better products to market, faster."

Design engineers using models with predominantly solid elements -- such as the simulation of engine structures -- can capitalize on the improved performance by introducing more complexity and realism into their models, leading to more accurate simulations and ultimately higher quality, and safer product designs.

"With support for single- and multi-GPU acceleration, MSC Nastran 2012 allows users to significantly reduce simulation turnaround times, create more high-fidelity simulations, and improve design quality," said Andrew Cresci, general manager of strategic alliances at NVIDIA. "We are expanding our joint development with MSC to include GPU acceleration of complex math kernels, allowing us to address NVH and large dynamics problems for our customers."

MSC Nastran 2012 supports single- and multi-GPU configurations and is available today for MSC customers to download. For more information on MSC Nastran 2012, visit [MSC Nastran for Integrated, Multidiscipline FEA Solution](#).

To learn more about Tesla™ GPUs, visit the [Tesla web site](#). To learn more about the NVIDIA® CUDA® programming environment, visit the [CUDA web site](#).

For more NVIDIA news, company and product information, videos/images, and other information, visit the [NVIDIA newsroom](#).

About NVIDIA

[NVIDIA](#) (NASDAQ: NVDA) awakened the world to computer graphics when it invented the [GPU](#) in 1999. Today, its [processors](#) power a broad range of products from [smart phones](#) to [supercomputers](#). NVIDIA's [mobile processors](#) are used in [cell phones](#), [tablets](#) and [auto infotainment systems](#). [PC gamers](#) rely on GPUs to enjoy spectacularly immersive worlds. Professionals use them to create visual effects in movies and design everything from golf clubs to jumbo jets. And researchers utilize GPUs to advance the frontiers of science with [high-performance computing](#). The company holds more than 2,100 patents worldwide, including ones covering ideas essential to modern computing. For more information, see [www.nvidia.com](#).

Tags / Keywords:

NVIDIA, CUDA, GPU, GPU computing, supercomputing, parallel computing, GPGPU, high performance computing, HPC, programmer, directives, developers, research, scientific computing, MSC Software, MSC Nastran

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