NVIDIA: 70 Leading Applications Add Support for GPU Accelerators to Meet Demand for Faster Simulations

Application Developers Embrace Accelerated Computing, Enabling Users to Design Higher-Quality Products, Gain More Scientific Insight

SALT LAKE CITY, UT -- SC12 --NVIDIA today announced that 70 more widely used applications have added support for GPU acceleration so far this year, bringing the total number available to researchers, engineers and designers to more than 200.

Three of the newest applications to offer GPU acceleration are:

- ANSYS® Fluent®: ANSYS Fluent enables engineers to develop more aerodynamic cars and planes, which can save millions of dollars in fuel costs, or improve thermal management and reliability of electronic integrated circuit packages. ANSYS Fluent has added a new beta solver with single GPU support to its market-leading NVIDIA® CUDA® applications, including ANSYS Mechanical™.
- MSC® Nastran®: Used by nearly every automotive manufacturer worldwide, MSC Nastran is a GPU-accelerated structural mechanics simulation application that helps optimize noise, vibration and harshness (NVH) performance, which are among the most often directly perceived quality attributes of a vehicle.
- CHARMM: Widely used by scientists to study biological processes at the molecular level, CHARMM's GPU acceleration enables a more accurate study of key proteins involved in disease, as well as interactions with drug candidates, as a means to develop more effective treatments.

"GPU computing first gained momentum among researchers who could download CUDA to accelerate their own applications for scientific discovery and research," said Addison Snell, chief executive officer of Intersect360 Research. "We are now in a new era where more commercial software is GPU-optimized, providing accelerated options across the full spectrum of engineering and business computing."

A partial list of other GPU-accelerating applications shipping or in development include:

- Computer-aided Engineering: Abaqus/Standard, Agilent ADS & EMPro, ANSYS Mechanical, CST MWS, MSC Nastran, Marc, OpenFOAM solver libraries, RADIOSS™
- Defense & Intelligence: DigitalGlobe Advanced Ortho Series, Exelis (ITT) ENVI, Incogna GIS, Intergraph Motion Video Analyst, MotionDSP Ikena ISR, PCI Geomatics GXL
- Media & Entertainment: Adobe CS6, Autodesk 3ds Max & Maya, Blackmagic DaVinci Resolve, Chaos V-Ray RT, Elemental Server, Telestream Vantage
- Oil & Gas: Acceleware AxRTM, ffA SVI Pro, Headwave Suite, Paradigm Echos RTM, Schlumberger Visage, WesternGeco Omega2 RTM
- Scientific Computing: AMBER, CHARMM, Chroma, FastROCS, GAMESS, GROMACS, GTC, WL-LSMS, MATLAB, MILC, NAMD, QUDA, VASP, VMD
- Weather & Climate Forecasting: COSMO, GEOS-5, HOMME, HYCOM, WRF, NEMO, NIM

A complete list is available at www.nvidia.com/teslaapps.

Most Accessible Parallel Processors
The advent of massively parallel GPU accelerators that are easily programmable in popular high-level languages or using auto-parallelizing compilers has given impetus to developers to maximize application performance.

Accelerators give developers a great degree of flexibility to take advantage of dramatic application speedups using familiar languages like C, C++ and Fortran, or using the directives-based OpenACC standard programming model.

Simple extensions to these high-level programming languages enable specifying parallelism using the NVIDIA CUDA parallel computing platform and programming model. Today the CUDA platform is supported by every NVIDIA GPU, resulting in a worldwide installed base of more than 415 million CUDA GPUs.

Learn more about accelerated computing and supported software applications at NVIDIA booth 2217 at SC12, Nov. 12-15.

About CUDA
CUDA is a parallel computing platform and programming model developed by NVIDIA. It enables dramatic increases in computing performance by harnessing the power of GPUs.

More information about NVIDIA CUDA GPUs is available at the Tesla® GPU website. To learn more about CUDA or download the latest version, visit the CUDA website. More NVIDIA news, company and product information, videos, images and other information is available at the NVIDIA newsroom. Follow us on Twitter at @NVIDIATesla.

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 smartphones 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 3D graphics and visual effects in movies and to design everything from golf clubs to jumbo jets. And researchers utilize GPUs to advance the frontiers of science with high performance computing. The company has more than 5,000 patents issued, allowed or filed, including ones covering ideas essential to modern computing. For more information, see www.nvidia.com.

Certain statements in this press release including, but not limited to, statements as to: the impact and benefits of NVIDIA Tesla GPUs and NVIDIA GPU acceleration and the effects of the company's patents on modern computing are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance

of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-Q for the fiscal period ended July 29, 2012. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

About NVIDIA

Since 1993, NVIDIA (NASDAQ : NVDA) has pioneered the art and science of visual computing. The company's technologies are transforming a world of displays into a world of interactive discovery — for everyone from gamers to scientists, and consumers to enterprise customers. More information at http://nvidianews.nvidia.com/ and http://blogs.nvidia.com/.

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