



NVIDIA GPUs to Accelerate World-Leading Quantum Chemistry Application

NVIDIA, Gaussian, PGI Announce Collaboration to Reduce the Time and Cost Required to Run Complex Calculations

SANTA CLARA, CA -- NVIDIA today announced plans with Gaussian, Inc., and The Portland Group (PGI) to develop a future GPU-accelerated release of Gaussian, the world's leading software application for quantum chemistry.

The Gaussian series of electronic-structure modeling programs is widely used worldwide by chemists, chemical engineers, biochemists, physicists, and others working on molecular-level chemical research. It enables researchers to study and predict the properties of molecules and reactions under a wide range of conditions, especially those that are difficult or impossible to observe experimentally.

By adding support for high-performance NVIDIA® Tesla™ GPUs and compilers from PGI in a future release of Gaussian software, researchers will have a powerful, more efficient tool to help reduce the cost and time required for running complex, data-intensive calculations. The GPU-accelerated version of Gaussian will be developed by a three-way collaboration among NVIDIA, Gaussian and PGI.

"Calculations using Gaussian are limited primarily by the available computing resources," said Dr. Michael Frisch, president of Gaussian, Inc. "By coordinating the development of hardware, compiler technology and application software among the three companies, the new application will bring the speed and cost-effectiveness of GPUs to the challenging problems and applications that Gaussian's customers need to address."

NVIDIA Tesla GPUs, based on the NVIDIA® CUDA parallel computing architecture, deliver transformative performance increases across a wide range of fields, including image and video processing, computational biology and chemistry, fluid dynamics simulation, image reconstruction, seismic analysis, and more. Designed specifically for high performance computing (HPC) environments, Tesla GPUs power three of the world's top five supercomputers.

"NVIDIA customers use GPU acceleration to push the boundaries in life sciences, and have been requesting a GPU-accelerated version of Gaussian," said Andrew Cresci, general manager of NVIDIA's Strategic Alliances Group. "Adding Gaussian acceleration support with NVIDIA GPUs will enable computational chemists and engineers to tackle significant scientific problems more efficiently and cost-effectively than with competitive solutions. The potential jump in productivity is huge."

PGI compilers and tools are recognized in the HPC community for delivering world-class performance and reliability across a wide spectrum of applications and benchmarks. PGI compilers are used widely for the modeling and simulation of complex processes, such as molecular modeling and quantum chemistry, ocean modeling, weather forecasting, seismic analysis, bioinformatics, and other areas.

"In working with Gaussian and NVIDIA, our objective is to deliver a high-performance FORTRAN compiler, which is key to enable the development of a GPU-accelerated release of Gaussian," said Douglas Miles, director, The Portland Group, "Working together we are making our accelerator model more reliable, complete, efficient, and easier to use, and widely applicable to other compute intensive applications."

For more information on Gaussian, please go [here](#). For more information about PGI, please go [here](#). For more information on NVIDIA Tesla GPUs for high performance computing, please go [here](#). For more information on CUDA, please go [here](#).

About NVIDIA

NVIDIA (NASDAQ: NVDA) awakened the world to the power of computer graphics when it invented the GPU in 1999. Since then, it has consistently set new standards in visual computing with breathtaking, interactive graphics available on devices ranging from tablets and mobile phones to notebooks and workstations. NVIDIA's expertise in programmable GPUs has led to breakthroughs in parallel processing which make supercomputing inexpensive and widely accessible. The Company holds more than 1,900 issued patents worldwide, including ones covering designs and insights that are 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, benefits and performance of NVIDIA Tesla GPUs and NVIDIA CUDA parallel computing architecture; 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 May 1, 2011. 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.

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