NVIDIA Parallel Nsight Delivers GPU Computing for Millions of Microsoft Visual Studio Developers

Massively Parallel Programming Now Available on Leading Windows Development Platform

SANTA CLARA, CA -- In a move that cements its leadership position in development tools for GPU Computing, NVIDIA today announced the release of NVIDIA Parallel Nsight software, the industry’s first development environment for GPU-accelerated applications that work with Microsoft Visual Studio.

NVIDIA has also released CUDA Toolkit 3.1, an update to its CUDA software development kit (SDK), available here.

"With more than six million developers, Visual Studio is one of the world’s most popular development environments for Windows-based applications and services," said Sanford Russell, general manager of GPU Computing at NVIDIA. "By adding functionality specifically for GPU Computing developers, Parallel Nsight makes the power of the GPU more accessible than ever before."

High performance computing (HPC) developers in fields such as oil and gas, bioscience and finance, are increasingly tapping the massively parallel processing capabilities of GPUs and Windows HPC Server 2008 to achieve significant performance increases in their work. NVIDIA Parallel Nsight connects these worlds, providing the professional tools required to develop and deploy HPC cluster applications.

"Research shows that developers believe the most difficult tasks when developing parallel applications are debugging, performance tuning and designing parallel algorithms," said David Rich, director, technical computing at Microsoft Corp. "By integrating GPU computing into Visual Studio, NVIDIA's Parallel Nsight is transforming the way GPU-based parallel computing applications are developed for Windows."

Visual Studio developers can now use Parallel Nsight to debug CUDA C/C++, or DirectCompute applications on the GPU using the same familiar tools and techniques as on the CPU. Parallel Nsight also provides the analysis tools that give developers the information required to achieve the highest levels of GPGPU application performance.

"NVIDIA Parallel Nsight has become our daily development tool when working with our CUDA-based applications such as SimHD® and H.264 encoder," said George Tang, ArcSoft's vice president and general manager of Video and Home Entertainment Group. "The step-by-step breakpoint debugging on actual GPU hardware, as well as the performance analyzer, help to efficiently fine-tune our products, bringing the performance to the next level."

Parallel Nsight also represents the premier environment for graphics development, delivering the DirectX 11 tools required by graphics developers to quickly and efficiently develop today's top game titles and visual computing applications.

"DirectX 11 delivers the technology for game developers to create immersive worlds, dynamic characters and more realistic gameplay," said Anton Kaplanyan, lead researcher at Crytek. "Game developers are leveraging both the GPU and CPU to achieve these new levels of realism and Parallel Nsight is the first toolbox in the world that allows us to look under the hood of the GPU, and makes parallel debugging not only possible but pleasant, significantly accelerating DirectX 11 development."

Parallel Nsight provides several specific features for graphics developers. The Graphics Debugger allows developers to debug all HLSL graphics shaders directly on the GPU. The Graphics Inspector allows real-time examination of DirectX rendering calls and GPU pipeline state to craft optimal GPU code, and Pixel History shows all operations that affect a given pixel, helping developers to quickly identify rendering errors and to create optimal rendering code. In addition, Parallel Nsight Analyzer allows OpenGL developers to optimize applications by presenting OpenGL API trace information on a timeline correlated with other GPU and CPU events.


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 portable media players 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 1,100 U.S. patents, including ones covering designs and insights, which are fundamental 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 benefits, features, impact and performance of NVIDIA Parallel Nsight software; and NVIDIA’s leadership position in development tools for GPU 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: development of more efficient or faster technology; design, manufacturing or software defects; the impact of technological development and competition; changes in consumer preferences and demands; customer adoption of different standards or our competitor's products; 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 including its Form 10-Q for the fiscal period ended May 2, 2010. Copies of reports filed with the SEC are posted on our 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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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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