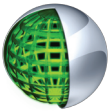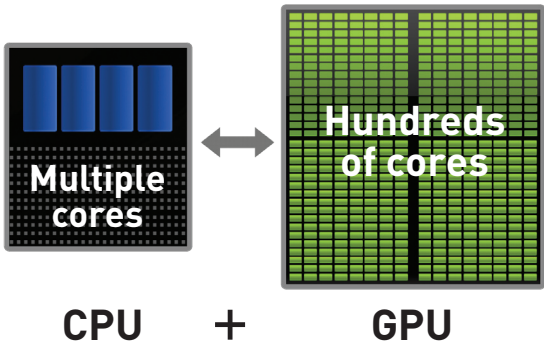# NVIDIA® PARALLEL NSIGHT™
POWER OF GPU COMPUTING
SIMPLICITY OF VISUAL STUDIO

NVIDIA Parallel Nsight for GPGPU Development

NVIDIA® Parallel Nsight™ software is the industry's first development environment for massively parallel computing integrated into Microsoft Visual Studio, the world's most popular development environment. Parallel Nsight is a powerful plug-in that allows programmers to develop for both GPUs and CPUs within Microsoft Visual Studio.


CPU + GPU

MASSIVELY PARALLEL COMPUTING

NVIDIA's Parallel Nsight in combination with Visual Studio, allows you to leverage the CPU for parallel tasks and the GPU for massively parallel computing

What could you do with your application running 5 - 50 times faster? Earlier detection of breast cancer? Real-time financial options pricing? Discover hidden oil reserves? Award winning game physics? Process HD video to allow your customers to meet deadlines? Our partners have done all of the above

The power of GPU Computing is already delivering game changing performance increases to the Medical, Finance, Energy, Consumer and Research fields. For over 1,000 customer stories visit **www.nvidia.com/cuda**
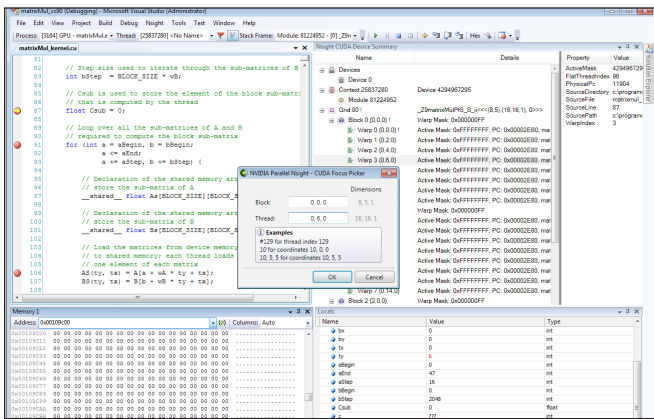
DEBUGGER

Debug compute kernels directly on GPU hardware

Examine thousands of threads executing in parallel using the familiar Locals, Watch, Memory and Breakpoints windows in Visual Studio

View GPU memory directly using the standard Memory windows in Visual Studio

Use conditional breakpoints to quickly identify and correct errors in massively parallel code

Identify memory access violations using the CUDA C/C++ Memory Checker
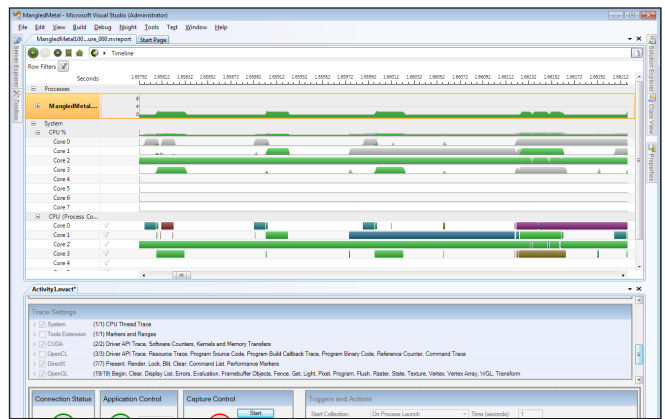
ANALYZER (PROFESSIONAL VERSION ONLY)

Capture CPU and GPU level events, including: API calls, kernel launches, memory transfers and custom application annotations

Single correlated timeline displays all captured events

Timeline inspection tools allow for the examination of workload dependencies

Filter and sort captured events using specialized reporting views

Profile CUDA kernels using GPU performance counters

To learn more about Parallel Nsight, go to **www.nvidia.com/nsight**

NVIDIA® PARALLEL NSIGHT™
POWER OF GPU COMPUTING
SIMPLICITY OF VISUAL STUDIO
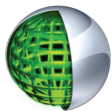
NVIDIA Parallel Nsight for GPU Graphics Development

NVIDIA® Parallel Nsight™ software is the world's first graphics development environment integrated into Microsoft Visual Studio, the world's most popular development environment, enabling DirectX 10 and DirectX 11 graphics development, debugging, and optimization.
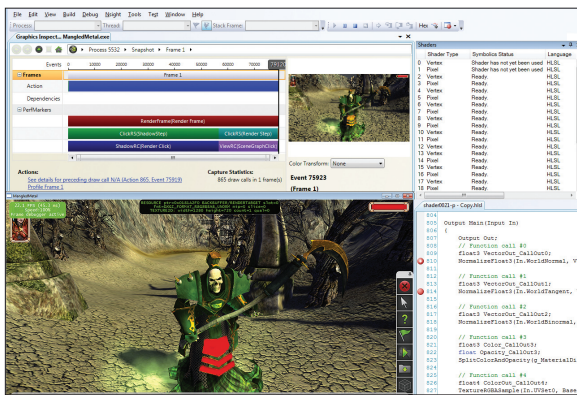

GRAPHICS DEBUGGER

Debug all HLSL graphics shaders directly on GPU hardware

Examine shaders executing in parallel using the familiar Locals, Watch, Memory and Breakpoints windows in Visual Studio

View and interact at the source code level with all shaders loaded by the application

Identify shaders that affect any given primitive or pixel using conditional breakpoints

Instantly debug any shader or graphics application
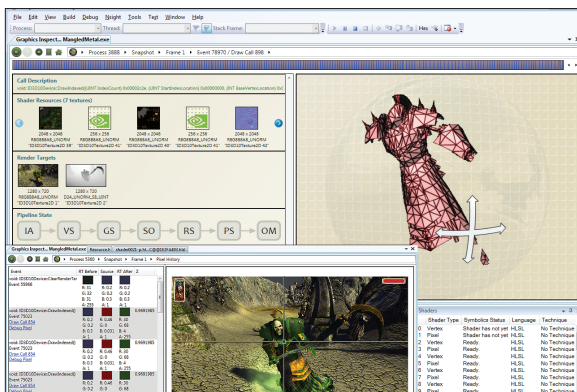
GRAPHICS INSPECTOR

Real-time examination of DirectX rendering calls

Interactive examination of GPU pipeline state, including visualization of bound textures, geometry and compute buffers

Pixel History shows all operations that affect a given pixel

Frame Profiler identifies performance bottlenecks and GPU utilization

Save frame captures for offline collaboration and analysis

PARALLEL NSIGHT STANDARD
Cost: Free of charge

> Fully integrated into Microsoft Visual Studio 2008 SP1
> Compute Debugger, supporting: CUDA C/C++ and Microsoft DirectCompute
> Graphics Debugger and Graphics Inspector
> Graphics supporting: DirectX 10, DirectX 11 and all HLSL shader types, including: vertex, pixel, geometry, hull and domain (for DX11 tessellation)
> Remote debugging and analysis over TCP/IPForum support
> Forum support

PARALLEL NSIGHT PROFESSIONAL
Cost: $349 per seat (first year) / $299 (subsequent years)

Includes Parallel Nsight Standard features plus:

> Nsight Analyzer, supporting GPU command trace of CUDA and OpenCL, API trace of CUDA, OpenCL, DirectX 10 and 11 and OpenGL 4.0, user event and thread trace
> Data breakpoints for CUDA C/C++ code
> Professional ticket-based support for 1 year
> All version upgrades for 1 year

To learn more about Parallel Nsight, go to **www.nvidia.com/nsight**