



# NVIDIA Directives-Based GPU Computing Program Already Delivering Application Speedups of 5x and More

## Hundreds of Researchers, Scientists Sign Up in Program's First Two Weeks

SANTA CLARA, CA -- NVIDIA today announced impressive results from the first wave of the new "*2x in 4 Weeks. Guaranteed.*" program, which promotes that programmers can, within a month, at least double their speed in running applications by using The Portland Group (PGI) directives-based compiler and NVIDIA GPUs.

Hundreds of scientists and researchers around the world have registered for the program since it was announced two weeks ago. Some have achieved 5x application speed-ups in as little as one day of programming.

Directives enable [parallel programmers](#) to provide simple hints to the compiler, identifying which areas of code to accelerate, without requiring programmers to modify or adapt the underlying code itself. By exposing parallelism to the compiler, directives allow the compiler to do the detailed work of mapping the computation onto the accelerator.

The program allows users to accelerate their applications on NVIDIA® Tesla™ GPUs using the PGI Accelerator compiler, and guarantees at least 2x speed-up of their applications in four weeks or less. Interested developers can register for a [free 30-day trial](#) at the NVIDIA "*2x in 4 Weeks. Guaranteed.*" [web site](#).

Initial results reported by program participants include:

- A postdoctoral fellow at the Netherlands Institute for Radio Astronomy (ASTRON) and the University of Groningen is benefiting in his work to understand the origins of the universe using tens-of-thousands of low-frequency antennas of the LOFAR telescope. Within five days of using directives, he was able to accelerate his image-reconstruction application by 5.6x.
- A global manufacturer of [navigation systems](#) is speeding up its research involving algorithms for real-time object detection in image sequences. Using directives and GPUs, a developer accelerated the production application by 5x in one week.
- A postdoctoral researcher at the University of Texas at San Antonio is on a mission to better understand the effects of solvents on proteins. By applying directives, he accelerated his application 5x in a single day.

The "*2x in 4 Weeks. Guaranteed.*" program was designed to prepare developers for the coming wave of directives-based solutions based on the new [OpenACC™ parallel programming standard](#). Announced at [SC11](#) in November, the OpenACC program is designed to enable the millions of scientific and technical programmers to easily take advantage of the transformative power of heterogeneous [CPU/GPU computing systems](#).

The OpenACC standard is anticipated to benefit a broad range of programmers working in chemistry, biology, physics, data analytics, weather and climate, intelligence, and many other fields. Existing compilers from Cray, PGI and CAPS are expected to provide initial support for the OpenACC standard beginning in December 2011, and continuing into 2012.

For more information or to participate in the "*2x in 4 Weeks. Guaranteed.*" program, visit the [NVIDIA web site](#), or download the [program FAQ](#). For more information about OpenACC, visit the [OpenACC web site](#). To learn more about Tesla GPUs, visit the [Tesla 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, Tesla, GPU, GPU computing, 2x in 4 weeks, OpenACC, supercomputing, parallel computing, GPGPU, high performance computing, HPC, programmer, directives, developers, research, scientific computing, The Portland Group, PGI, Cray, CAPS enterprise

Certain statements in this press release including, but not limited to statements as to: the impacts and benefits of NVIDIA Tesla GPUs, directive-based compilers, and the OpenACC parallel programming standard; support by existing compiler

solutions for the OpenACC parallel programming standard; 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 31, 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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