

NVIDIA Enables Dramatic New Video Processing and I/O Capability for Quadro and Tesla GPUs

Industry-Leading Video I/O Partners Share Vision of Delivering Low-Latency, High Performance Capabilities

AMSTERDAM, THE NETHERLANDS --(Marketwire) -- 09/09/2011 -- **International Broadcasting Convention 2011** -- NVIDIA introduced today [NVIDIA® GPUDirect™ for Video](#), a technology that enables application developers to deliver higher quality, more realistic on-air graphics -- or take faster advantage of the parallel processing power of the GPU for image processing -- by permitting industry-standard video I/O devices to communicate directly with [NVIDIA professional Quadro®](#) and [Tesla™](#) graphics processing units (GPUs) at ultra-low latency.

NVIDIA GPUDirect for Video technology is the fastest, most deterministic way to get video to the GPU for processing, enabling leading video I/O board manufacturers to take advantage of the programmability of the GPU. With GPUDirect for Video, the video I/O card is fully synchronized with the GPUs, eliminating CPU overhead and, most importantly, dramatically reducing latency.

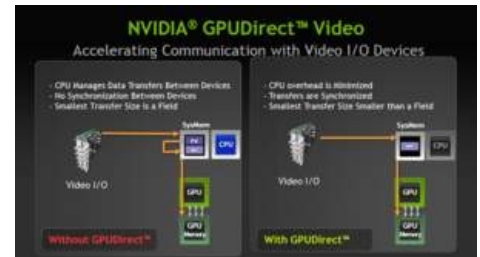
"NVIDIA and our partners are redefining what's possible in real-time video production," said Greg Estes, industry executive, Media & Entertainment, NVIDIA. "Enabling lower latency solutions for processing real-time video streams will benefit not just those working in broadcast and production facilities, but also applications in manufacturing, healthcare and government agencies."

Historically, broadcasters and video production professionals had to contend with delays of as many as ten frames -- an amount easily visible to the eye -- when transferring video from a video I/O device to a GPU, because the two devices could not communicate directly with one another to ensure synchronization. This required application developers to manage complex buffering schemes, leading to unnecessary CPU overhead and increased latency. Most importantly, these delays in aggregate significantly raised the cost and complexity of larger broadcast productions.

"AJA is supporting NVIDIA's new capability with our latest generation of video I/O products," said Nick Rashby, President, AJA Video Systems. "This will allow developers whose apps support AJA video I/O products to take better advantage of the power of NVIDIA Quadro and Tesla GPUs, resulting in low-latency access for both graphics compositing and general purpose processing using CUDA or OpenCL, with all the I/O and performance they depend on from AJA."

"Blackmagic Design is excited to support the new NVIDIA GPUDirect for Video technology being announced at IBC 2011," said Grant Petty, CEO of Blackmagic Design. "NVIDIA and Blackmagic share a common vision to build a tightly-integrated platform for high-performance, low-latency video and graphics processing. Our customers in both broadcast and post-production industries will see tremendous benefits in the future by combining the processing power of NVIDIA Quadro and Tesla GPUs with our desktop video solutions."

"DVS is known for developing the highest quality video boards in the market," says Juergen Heger, senior product manager at DVS Digital Video Systems GmbH. "In real-time production environments, the latency between GPU and



[NVIDIA GPUDirect for Video technology](#)



[NVIDIA Quadro Digital Video Pipeline](#)



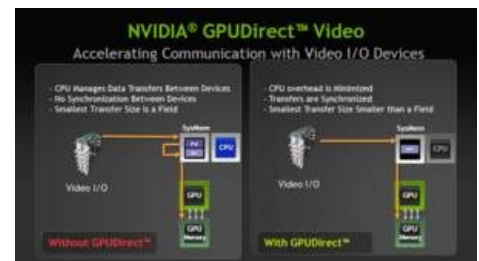
[NVIDIA Quadro 4000, Quadro 5000, and Quadro 6000 professional graphics cards](#)



[NVIDIA Tesla C2050](#)

SDI is a critical point for our customers. Our famous, longstanding SDK now includes NVIDIA GPUDirect for Video. Our hardware solutions directly communicate with NVIDIA professional Quadro and Tesla GPUs without noticeable delay, which is ideal for applications like compositing, live graphics or real-time video-processing."

"Matrox DSX Developer Products are renowned among broadcast equipment manufacturers for high performance I/O hardware, a comprehensive SDK, and outstanding applications engineering support," said Alberto Cieri, senior director of sales and marketing from Matrox. "Our collaboration with NVIDIA on their GPUDirect for Video technology for Quadro and Tesla professional GPUs will further enhance our OEM customers' broadcast graphics system performance."



[NVIDIA GPUDirect for Video Datasheet](#)

"Vizrt is the market leader in broadcast graphics because of our long reputation for delivering innovative new solutions to our broadcast customers," said Gerhard Lang, chief engineering officer, Vizrt. "We've been recommending NVIDIA Quadro as our GPU of choice for many years because of the quality and reliability of these solutions. With NVIDIA now working in partnership with video I/O manufacturers, we anticipate lower latency solutions with more I/O options, enabling higher quality and more detailed graphics for our customers worldwide."

NVIDIA GPUDirect for Video technology will further advance the growing adoption of GPUs in film, live broadcast, and video production. Companies such as 3Ality Digital, Adobe, AJA, Autodesk, Avid, Binocle, Blackmagic Design, Brainstorm, Chyron, DVS, GenArts, MainConcept, RT Software, Quantel, Sony, The Foundry, Vizrt plus a growing number of application developers are already using GPU computing to accelerate their applications.

With the new NVIDIA GPUDirect for Video solution being unveiled at IBC 2011, video I/O manufacturers, companies who make their own proprietary hardware, and even companies making video switchers will be able to take advantage of these sub-frame, low latency transfers in their own SDKs and commercial solutions for no additional cost.

Availability

NVIDIA GPUDirect for Video technology is available immediately, free of charge, directly from NVIDIA for video I/O manufacturers, proprietary hardware providers, and video switcher manufacturers. Video I/O hardware developers can request information and access to the SDK via e-mail: GPUDirectForVideo-registration@exchange.nvidia.com, or they can visit the NVIDIA GPUDirect for Video registration page at <http://developer.nvidia.com/gpudirectforvideo>. NVIDIA expects commercially available solutions from its partners will be on the market by late 2011. NVIDIA GPUDirect for Video is supported on Windows 7 and Linux, and is designed to work with NVIDIA Quadro® 4000, Quadro 5000, and Quadro 6000 GPUs, and NVIDIA Tesla C-Series GPUs.

NVIDIA GPUDirect for Video technology is being demonstrated at IBC 2011 in the DVS booth (#7.E25) at the RAI, from September 9-13, 2011. To learn more, visit: www.nvidia.com/workstation.

Follow NVIDIA Workstation/Quadro on [YouTube](#), and Twitter: [@NVIDIAQuadro](#).

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 2,100 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 performance, availability, impact and benefits of NVIDIA GPUDirect for Video, NVIDIA Quadro graphics and GPUs, and NVIDIA Tesla GPUs; 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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