**Real-Time, 3D Broadcast Production**

The Nvidia Quadro Digital Video Pipeline is a GPU-accelerated system for real-time acquisition, processing, and delivery of high-resolution video in standard and 3D video broadcast environments.

Developed for single- or multicamera environments, and with support for stereoscopic 3D production workflows, the Quadro Digital Video Pipeline is designed to provide a direct feed of up to four HD SDI video streams (or two stereoscopic 3D feeds) simultaneously, using the GPU to debayer raw camera data in real time. The pipeline is powered by a single workstation, enabling cost-effective implementation of multicamera 3D systems.

The system enables 3D workflows by processing simultaneous right eye and left eye video streams in real time. Additionally, by pairing this pipeline with Nvidia 3D Vision active shutter glasses, broadcast operators and directors can preview stereo 3D content at full resolution during production.

For postproduction of 3D content, video professionals can edit with Adobe Premiere Pro CS5, which is accelerated by the Quadro GPUs. Several plug-ins for 3D capture, compositing, and encoding are available.


**Video Stabilization Technology**

Sony Creative Software has integrated ProDAD’s video-stabilization technology into its Vegas Movie Studio HD Platinum 10 video-editing software.

ProDAD’s Mercalli video-stabilization product is designed to remove shake from otherwise good video in postproduction. ProDAD has made its technology available in SDK form to allow software companies and camera hardware companies to integrate it into their products. The proDAD Mercalli SDK supports HD/SD video and offers video analysis and preview of the stabilized video based on several different stabilization profiles and fast rendering designed to produce video with minimal artifacts.

The Mercalli SDK also provides rolling-shutter compensation, which is designed to correct the distortion often introduced with CMOS-based fixed lenses found in low-cost MPEG-4 pocket camcorders and mobile devices with video-recording capabilities.

Sony Creative Software’s Vegas Movie Studio HD Platinum 10 is a video-editing, audio production, and DVD-authoring suite with movie-making features, including Dolby Digital 5.1 surround-sound mixing and encoding, video compositing, color correction, and editing of AVCHD video.

For more information visit [http://www.sonycreativesoftware.com](http://www.sonycreativesoftware.com).

**Sync iTunes Libraries and Playlists**

MediaRover is a software system designed to automatically synchronize iTunes music libraries between multiple devices, such as Sonos, Squeezebox, and Blu-ray players. Designed to run quietly in the background, the program stores and organizes songs and playlists in a shared folder on the user’s network, without any reliance on an external Web-based storage service.

When one person adds a song in iTunes on one computer, everyone in the network gets a copy to put on their iPod. Update the song or band name in one iTunes library, and everyone else gets the same edits in their own libraries. The shared MediaRover library is also available to streaming-capable devices such as Xbox 360, PlayStation 3, Tivo, and media servers.

Available now as a free trial, MediaRover can automatically find all Sonos ZonePlayers, including the $5, on a home network. When any user changes his or her iTunes library, all the Sonos units are automatically updated with new songs, playlists, and metadata via MediaRover. MediaRover comes with an installation wizard that can search a home network for Sonos players and automatically add them to its broadcast list.

For more information visit [http://www.mediarover.com](http://www.mediarover.com).

**Car Speed and Acceleration Notification**

The Safe Driver program from Dangerous Decisions takes advantage of internal GPS...
locator systems and accelerometers to provide the ability to know when an iPhone-equipped driver exceeds preset speed or acceleration levels. The program documents acceleration, braking, cornering, and speed. Once set points are entered, the program can record the speed and calculate the g-forces experienced by the driver.

The basic program, which can be downloaded for free, allows a user to test the application with preset fixed g-force and speed limits. The violations are displayed and the last two trip reports are stored in the device for review.

The pro version, which costs $24.99, lets users specify the speed and g-force set points and identify how they want violations to be reported. When a violation occurs, the program can automatically send either a text or email message identifying the vehicle being used, the time the program started and stopped, the set point exceeded, the time of the infraction, and the duration that the set point was exceeded.

The pro version also provides users with the ability to receive a detailed trip report via email that displays a map with drop pins indicating the location of the vehicle when the application was initiated and shut down, a list of the set points, a summary of violations and peak speed reached if speed set point were exceeded, the ID of the vehicle driven, and a detailed list of any violations for that trip.

To encourage users to stay compliant, both versions provide color visual and audio sound alarms when a driver comes within 95 percent of any set point limit.

The Safe Driver programs are available at the Apple iTunes Store. For more information visit http://www.DangerousDecisions.com.

**CGI Filmmaking Application**

Muvizu is a software application designed to let users direct prerendered trip report via email that displays a map with drop pins indicating the location of the vehicle when the application was initiated and shut down, a list of the set points, a summary of violations and peak speed reached if speed set point were exceeded, the ID of the vehicle driven, and a detailed list of any violations for that trip.

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**GPU Acceleration for Bioscience**

Nvidia has announced the Tesla Bio Workbench, a program designed to bring together the computational components needed to run GPU-accelerated bioscience applications.

The Tesla Bio Workbench includes an array of GPU-capable bioscience codes, a community Web site for downloading the codes, providing a forum for information exchange, and recommendations for Nvidia Tesla GPU-equipped workstations and clusters. The program’s goal is to educate the biotech community about available applications and hardware.

Over the past couple of years, the application set for computational biology codes that are GPU-friendly has grown tremendously, mainly due to CUDA ports of the software’s CPU versions. This has produced a large number of popular molecular dynamics and quantum chemistry software packages that can now be run on Nvidia GPUs. Many of these packages are available for download free of charge, especially if their use is limited to academic research.

Nvidia designed the Tesla Bio Workbench so that the use of GPUs can help make computational bioscience a less expensive proposition. Nvidia maintains that because of the parallel computational capabilities of the modern graphics processor, for many science applications a GPU-equipped workstation can replace a small CPU cluster, while a moderate-sized GPU cluster can serve as an alternative to traditional supercomputing, reducing hardware costs, energy use, and datacenter space.

For more information visit http://www.nvidia.com/object/tesla_bio_workbench.html.