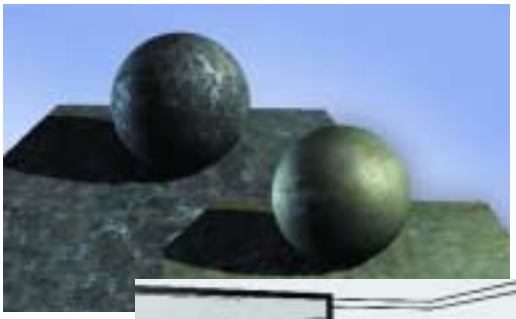
THE MOBILE WORKSTATION GPU

NVIDIA's **Quadro™4 Go GL** Graphics Processing Unit (GPU) takes mobile workstation computing to the next level. Quadro4 GO GL delivers a high-performance, innovative solution for engineers, animators and other professionals looking for workstation-class graphics on a mobile platform. No other mobile graphics solution provides a full complement of desktop workstation features, including hardware accelerated antialiased lines, OpenGL® hardware overlay planes, two-sided lighting and more, as well as industry-leading performance on a mobile platform. Combined with NVIDIA's workstation software architecture, professional application certifications and NVIDIA's PowerMizer™ technology, the Quadro4 Go GL delivers uncompromising productivity for workstation users on the go.



QUADRO4 WORKSTATION FEATURES AND PERFORMANCE

Leveraging the Quadro4 XGL core architecture, the Quadro4 Go GL's unmatched performance empowers mobile professionals. The unrivaled performance of Quadro4 Go GL is a testament to the latest architectural features inherited from the Quadro4 XGL desktop workstation series. These features include hardware accelerated antialiased lines, OpenGL overlay planes, two-sided lighting, quad-buffered stereo, and many other features exclusive to the NVIDIA's Quadro4 XGL and Quadro4 Go GL series of professional workstation solutions.

Quadro4 Go GL also features NVIDIA's second-generation Lightspeed Memory Architecture™ (LMA) II, which supports up to 64MB of DDR unified graphics memory. LMA II intelligently optimizes data transfer across NVIDIA's patented crossbar memory controller, delivering blistering sustained data rates.

High-quality, multi-display configurations are now the standard for workstation platforms, and NVIDIA's nView™ technology is the premier multi-display solution for stability, image quality and performance. nView's smart and flexible interface has built-in usability features to minimize setup and maximize productivity. Features such as hot-key binding, smart Windows® management and the ability to name and save up to 32 different desktop configurations make nView the most advanced, flexible and user-friendly multi-display management system available, all seamlessly integrated into the Windows environment.

CERTIFIED WORKSTATION QUALITY

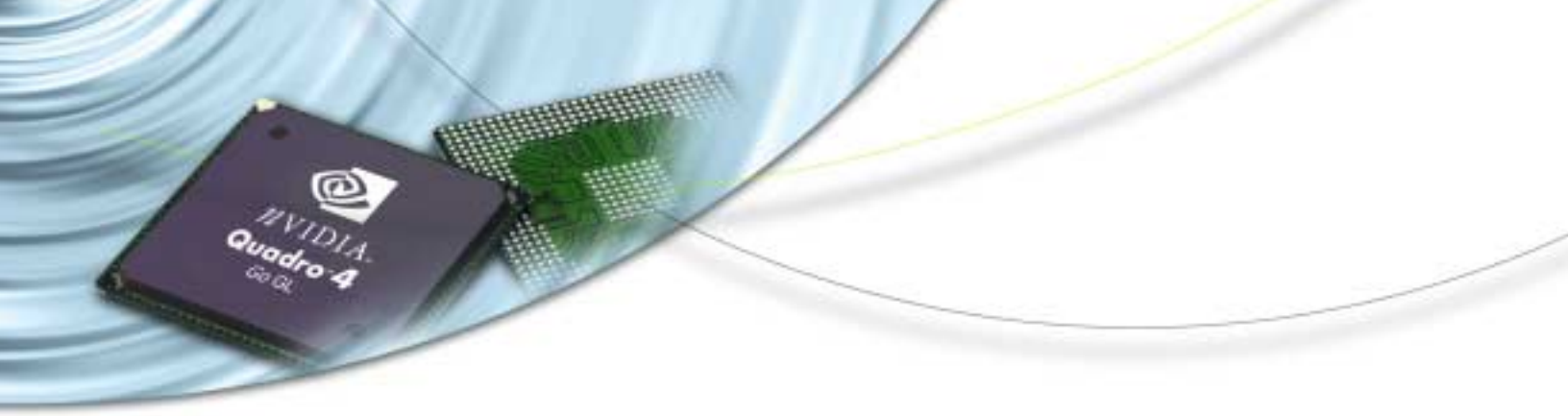
For professional users, application certification is a must-have to avoid instability resulting in reduced productivity. Quadro4 Go GL offers unconditional certification support for all workstation CAD and DCC applications.

Like all members of the Quadro4 family, Quadro4 Go GL utilizes NVIDIA's patented Unified Driver Architecture (UDA) and custom workstation application drivers. NVIDIA's UDA provides a single driver for all NVIDIA products for forward-and-backward, top-to-bottom compatibility, and ease of installation and manageability.

The company's custom drivers, called Quadro Application Utilities, add even more features and performance to key applications. These utilities include the ELSA® MAXtreme™ driver for 3ds max™; the ELSA POWERdraft™ driver for AutoCAD™; and the NVIDIA's QuadroView™ driver for professional 3D visualization.

POWERMIZER – EXTENDED LIFE FOR WORKSTATION PRODUCTIVITY

Quadro4 Go GL features NVIDIA's PowerMizer, a dynamic power-modulation hardware and software technology that employs a variety of power-saving techniques to maximize battery life while providing optimal graphics performance. This is achieved through dynamic voltage and frequency management to minimize power consumption, and by exposing an extensive range of customizable power management parameters to the end user. In addition, dedicated hardware, such as the integrated Video Processing Engine (VPE) and powerful 3D graphics engine greatly reduce CPU utilization for 3D applications and DVD playback, achieving the optimal balance between application performance and battery life. Combined with the industry's lowest operating voltage, Quadro4 Go GL delivers unsurpassed workstation productivity without sacrificing battery life.



GPU FEATURES

- Quadro4 500 GO GLworkstation GPU
  - Hardware accelerated antialiased lines
  - OpenGL® hardware overlay planes
  - Two-sided lighting
  - 3D clipping planes
  - OpenGL quad-buffered stereo
- Lightspeed Memory Architecture II
  - 64MB 128-bit DDR memory
  - Second-generation Occlusion Culling
  - Quad Cache – dedicated graphics caches
- High-Resolution Antialiasing
  - Quincunx antialiasing without penalty
  - 2X, 4X and 4XS sample modes
- Video Processing Engine (VPE)
  - Power-efficient MPEG2 decoder
  - Full-scene, full-speed HDTV/DVD playback (up to 1920x1080i ATSC format)
  - Motion compensation and IDCT
  - Independent hardware color controls for video overlay
  - Hardware color-space conversion (YUV 4:2:2 and 4:2:0)
  - 5-tap horizontal by 3-tap vertical filtering
  - 8:1 up/down scaling
- nView Hardware Architecture
  - Dual displays (2048x1536 @ 75Hz on each display)
  - Dual 350 MHz DACs
  - Seamless integration within Windows®, including application extensions for Internet Explorer and Microsoft® Office
- PowerMizer
  - Industry's lowest nominal power consumption
  - Dynamic frequency and voltage management
  - Intel® SpeedStep™ compatible
  - ACPI 2.0 compliant

UNIFIED DRIVER FEATURES

- Application Compatibility
  - Certified for all workstation applications (CAD, DCC, Visual Simulation, GIS, etc.)
  - Fully compliant with professional OpenGL 1.3 and DirectX® 8.1
- Workstation Optimizations
  - Optimized for Intel and AMD® workstation configurations
  - Optimized for professional OpenGL 1.3 and DirectX 8 applications
- Quadro Application Utilities: customized application drivers
  - POWERdraft (AutoCAD)
  - MAXtreme (3ds max)
  - QuadroView (CAD viewer)
- Operating Systems
  - Windows XP (WHQL Certified)
  - Windows 2000 (WHQL Certified)
  - Windows NT® (WHQL Certified)
  - Windows 98, Windows 95 (WHQL Certified)
  - Full OpenGL 1.3 Linux implementation with complete NVIDIA and ARB extensions

PERFORMANCE

SPECIFICATIONS	QUADRO4 500 GO GL
MEMORY	64MB DDR
TRIANGLES/SEC.*	31 MILLION
MEDM/CAD	40 FPS
ProCDRS	49 FPS

* As measured by SPECglperf® for the following conditions: Triangle Strip (CallList, RBG, 5 pixel, 3D, 64x64 RBG trilinear modulated texture, smooth, 1 inf light).
Note: Tested on 2.0 GHz Pentium4, 512MB RAM, Driver version 27.40

PROFESSIONAL CERTIFICATIONS

CAD

- Ansys®
- Autodesk AutoCAD®
- Bentley Microstation®
- Co|Create™ SolidDesigner
- Dassault CATIA®
- ESRI ArcInfo
- Helix
- MSC Nastran/Patran
- Plant Designer/Imagineer
- PTC® Pro/Engineer™
- PTC 3Dpaint™
- SDRC I-DEAS® Master Series
- SolidWorks®
- UGS® Solid Edge™
- Unigraphics®
- and many more

DCC

- Alias|Wavefront™ Maya®
- Alias|Wavefront StudioTools®
- Discreet 3ds max
- Newtek Lightwave 3D™
- SOFTIMAGE®|3D
- SOFTIMAGE|XSI
- and many more

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