



## THE STANDARD FOR MOBILE WORKSTATIONS

The NVIDIA Quadro®4 700 Go GL graphics processing unit (GPU) brings the power of the award-winning NVIDIA Quadro4 700 XGL to mobile workstation graphics. Based on the identical programmable architecture as the market-leading NVIDIA Quadro4 XGL products, the NVIDIA Quadro4 700 Go GL delivers twice the performance of the previous generation of mobile workstation GPUs. In addition, the NVIDIA Quadro4 700 Go GL brings hardware accelerated procedural shaders to mobile workstations for the first time, empowering Cg hardware rendering shading technology in next-generation computer-aided design (CAD) and digital content creation (DCC) applications.

### THE INDUSTRY'S FASTEST MOBILE WORKSTATION

The breakthrough workstation architecture of the NVIDIA Quadro4 700 Go GL delivers up to twice the performance of the award-winning NVIDIA Quadro4 500 Go GL GPU—faster than many competing desktop workstation solutions.

The NVIDIA Quadro4 700 Go GL incorporates hardware features that workstation applications require to deliver the highest performance for professionals in mission critical environments. These hardware accelerated features include antialiased points and lines, overlay planes, two-sided lighting, user clip planes, second-generation occlusion culling, high-quality full-scene antialiasing, and many others, including support for the high-speed AGP 8X graphics interface. All these features combine to deliver the fastest mobile workstation OpenGL® and DirectX® application performance.

### NVIDIA QUADRO4 FEATURES AND PROGRAMMABILITY IN A MOBILE PLATFORM

The engineering, modeling, and animation workflow is accelerating beyond simple solid modeling to more accurate real-time visualization using graphics hardware rendered procedural shaders. The industry's leading CAD and DCC applications have incorporated procedural shaders into their workflow by using high-level shading languages, such as Cg.

Cg makes sophisticated programmable hardware graphics easily accessible to software developers and the mainstream users of these applications.

These procedural Cg shaders enable more accurate visualization, allowing engineers and artists to make design decisions early in the workflow, reducing wasted time and improving a project's time to market.

Many of the leading CAD and DCC applications have integrated Cg procedural shaders into their workflow, and others

are sure to follow. Leading this sea-change in application functionality are SolidWorks® by Dassault Systemes®, Maya® by Alias|Wavefront™, 3ds max by Discreet®, and Softimage® XSI by Softimage. The degree to which these applications have incorporated Cg shaders into their user interfaces demonstrates the value and productivity benefit of procedural shaders.

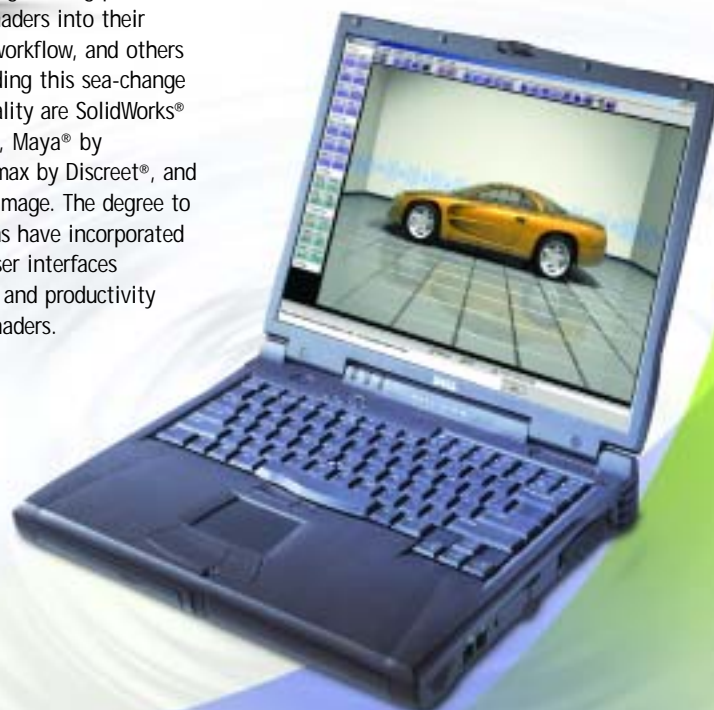
### CERTIFIED WORKSTATION PRODUCTIVITY ON THE GO

NVIDIA Quadro mobile workstation GPUs are certified across the broadest range of workstation applications. Since introducing the first mobile workstation GPU, NVIDIA has certified over a hundred major workstation application releases on a variety of mobile workstation systems. This is a testament to the quality of the NVIDIA Unified Driver Architecture (UDA), which enables continual certification quality as well as performance enhancements over the life of NVIDIA Quadro products.

### THE STANDARD FOR MOBILE WORKSTATIONS

Mobile professionals no longer need to sacrifice performance away from the office. The NVIDIA Quadro4 700 Go GL delivers faster performance than many desktop workstation graphics, and empowers CAD and DCC applications with all of the Cg shading capabilities that professionals demand.

*The NVIDIA Quadro4 700 Go GL—  
The Standard for Mobile Workstations.*





## FEATURES BENEFITS

- |  |   |
|--|---|
| <b>Workstation Graphics Architecture</b>                                       | • The NVIDIA Quadro4 architecture integrates workstation-specific functionality to accelerate OpenGL® and DirectX® professional applications. This results in the industry's fastest application mobile performance and highest image quality.  |
| <b>NVIDIA nfiniteFX II Engine – Procedural Shaders for Applications</b>        | • The latest workstation applications rely on the programmability of the NVIDIA Quadro4 architecture in order to exploit the power of procedural shaders using the Cg high-level shading language.  |
| <b>Lightspeed Memory Architecture (LMA) II – Performance Memory Management</b> | • NVIDIA Quadro4 700 Go GL supports 64MB DDR unified graphics memory. This memory is dynamically allocated between graphics subsystems for maximum memory utilization. Furthermore, LMA II intelligently optimizes data transfer across the patented NVIDIA crossbar memory controller, delivering blistering sustained data rates.   |
| <b>Workstation Software Architecture</b>                                       | • NVIDIA Quadro workstation graphics are certified by more professional applications than any other product in the industry. The NVIDIA Unified Driver Architecture (UDA) ensures that certifications, feature enhancements and performance tuning automatically benefit past and present NVIDIA Quadro products, resulting in performance enhancements throughout the life of the product. |
| <b>8x Full-Scene Antialiasing (FSAA)</b>                                       | • 8x FSAA dramatically reduces visual aliasing artifacts or “jaggies”, resulting in more accurate design visualization.   |

## PERFORMANCE

SPECIFICATION	QUADRO4 700 GO GL
Memory	64MB DDR
proe-01	12.7*
ugs-01	11.9*
3smax-01	10.6*

\*SPECviewperf 7.0, tested on a 2.2GHz Pentium 4 with 512MB of SRAM, NVIDIA UDA, driver version 42.81

### NVIDIA QUADRO4 700 GO GL FEATURES\*\*

- Hardware overlay planes
- Hardware antialiased lines
- Two-sided lighting
- 3D clipping planes
- 8x high-resolution full-scene antialiasing
- Second-generation occlusion culling
- NVIDIA Lightspeed Memory Architecture (LMA) II
- Dual 350MHz RAMDACs (2048x1536 per display)
- Optimized and certified for OpenGL and DirectX applications
- OpenGL quad-buffered stereo
- 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
  - 5-tap horizontal by 3-tap vertical filtering
  - 8:1 up/down scaling

### UNIFIED DRIVER FEATURES

- Optimized compiler for Cg and Microsoft HLSL
- Full OpenGL 1.4 and DirectX 8.1 support
- Architected for future APIs (eg., OpenGL 2.0)
- Open source compiler

### POWERMIZER

- Industry's lowest nominal power consumption
- Dynamic frequency and voltage management
- Intel® SpeedStep™ compatible
- ACPI 2.0 compliant

### NVIDIA QUADRO APPLICATION UTILITIES

- POWERdraft (AutoCAD®)
- MAXtreme (3ds max)
- NVIDIA QuadroView (CAD viewer)

### OPERATING SYSTEMS

- Windows® XP (WHQL-Certified)
- Windows 2000 (WHQL-Certified)
- Windows NT®
- Windows 98, Windows 95
- Linux—Full OpenGL 1.4 implementation, complete with NVIDIA and ARB extensions

### PROFESSIONAL CERTIFICATIONS: CAD

- Ansys®
- Autodesk AutoCAD
- Autodesk Inventor
- 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...

### PROFESSIONAL CERTIFICATIONS: DCC

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

\*\*Not all features available on all OEM platforms. Check with your system vendor for detailed specifications.



**NVIDIA.**

NVIDIA Corporation | 2701 San Tomas Expressway | Santa Clara, CA 95050 | T 408.486.2000 | F 408.486.2200 | [www.nvidia.com](http://www.nvidia.com)

© 2003 NVIDIA Corporation. All rights reserved. Assassin image courtesy Dave Wilson. [www.3dluvr.com/davewilson](http://www.3dluvr.com/davewilson). Car image courtesy LightWorks. All company and/or product names are trademarks and/or registered trademarks of their respective manufacturers. Features, pricing, availability, and specifications are subject to change without notice.