

## THE RIGHT TOOLS FOR PROFESSIONALS NVIDIA WORKSTATION GPUs

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# **NVIDIA PROFESSIONAL SOLUTION GUIDE**

### The best solution for customers on their use case.

The current Quadro lineup includes Maxwell, Pascal and Volta architectures. Please request that your customer contact their software provider for the latest information on application certifications and support.



> Occasional use of application	
> Small objects and assemblies	

- About 10% of the users
- Regular use of application
  Average to large objects and assemblies
- Using all application features
- > About 80% of users
- > Pushing the application to its limits> Extremely large objects and
- assemblies
- > Using all application features
- > About 10% of users

#### DESIGN/ENGINEERING/MANUFACTURING

Altair® HyperWorks®	Desktop	NVIDIA Quadro <sup>®</sup> P2000	NVIDIA Quadro P4000	NVIDIA Quadro P5000	
ANSYS <sup>®</sup> Discovery Live	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
ANSYS Workbench™, ANSYS AIM, ANSYS EnSight	Desktop	Quadro P1000	Quadro P4000	Quadro P5000	
ANSYS Mechanical, ANSYS Fluent, ANSYS HFSS	Desktop	Quadro GP100	Quadro GP100 / Quadro GV100	2x Quadro GP100 / 2x Quadro GV100	
Autodesk 3ds Max®	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
Autodesk <sup>®</sup> AutoCAD <sup>®</sup>	Desktop	Quadro P620	Quadro P2000	Quadro P4000	
Autodesk Fusion 360	Desktop	Quadro P620	Quadro P2000	Quadro P4000	
Autodesk Netfabb 2018	Desktop	Quadro P620	Quadro P2000	Quadro P4000	
Autodesk Inventor®	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Autodesk MoldFlow®	Desktop	Quadro GP100	Quadro GP100 / Quadro GV100	2x Quadro GP100 / 2x Quadro GV100	
Autodesk Showcase™	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Autodesk VRED	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
Beta CAE ANSA, META	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
COMSOL	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Dassault Systèmes 3DEXCITE DELTAGEN / DELTAVIEW	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
Dassault Systèmes CATIA V5-6 and 3DEXPERIENCE	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Dassault Systèmes CATIA Live Rendering	Desktop	Quadro P5000	Quadro P6000	Quadro GP100 / Quadro GV100	
Dassault Systèmes SIMULIA Abaqus, SIMULIA CST STUDIO	Desktop	Quadro GP100	Quadro GP100 / Quadro GV100	2x Quadro GP100 / 2x Quadro GV100	
Dassault Systèmes SOLIDWORKS	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Dassault Systèmes SOLIDWORKS Visualize²	Desktop	Quadro P4000	Quadro 2x P4000	Quadro GP100 / Quadro GV100	
ESI Group IC.IDO	Desktop	Quadro P5000	Quadro 2x P5000	3x Quadro P6000	
EXA PowerViz	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
LS-PrePost	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Lumiscaphe P3D Design	Desktop	Quadro P5000	Quadro P6000	Quadro GP100 / Quadro GV100	
MathWorks MATLAB	Desktop	Quadro GV100	Quadro GP100 / Quadro GV100	2x Quadro GP100 / 2x Quadro GV100	
MSC Nastran	Desktop	Quadro GP100	Quadro GP100 / Quadro GV100	2x Quadro GP100 or 2x Quadro GV100	
MSC Patran, Apex, ADAMS	Desktop	Quadro P620	Quadro P1000	Quadro P4000	
PTC Creo	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Siemens CD-adapco STAR-CCM+	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	
Siemens NX, SimCenter, NX CAE, FEMAP	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	

### DESIGN/ENGINEERING/MANUFACTURING cont.

DESIGN/ENGINEERING/MAN		GOOD	BETTER	BEST
Siemens NX + Ray Traced Studio (Iray)	Desktop	Quadro P4000	Quadro 2x P4000	Quadro P6000
Siemens PLM Solid Edge	Desktop	Quadro P2000	Quadro P4000	Quadro P5000
Siemens NX Nastran	Desktop	Quadro GP100	Quadro GP100 or Quadro GV100	2x Quadro GP100 or 2x Quadro GV100
VIRTUAL REALITY VIEWER (	/R VIEW	ER)		
Autodesk Live	Desktop	Quadro P4000	Quadro P5000	Quadro P6000
Siemens VR Viewer	Desktop	Quadro P3000	Quadro P4000	Quadro P5000
ARCHITECTURE / ENGINEER	ING / CO	NSTRUCTION		
Autodesk 3ds Max®	Desktop	Quadro P4000	Quadro P5000	Quadro GV100 / Quadro GV100
Autodesk ReCap 360	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Autodesk Revit®	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Nemetschek Allplan	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Nemetschek Graphisoft ArchiCAD	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Nemetschek Vectorworks	Desktop	Quadro P620	Quadro P2000	Quadro P4000
MODELING/ANIMATION /VIS	UALIZAT	ION/EFFECTS		
Autodesk 3ds Max	Desktop	Quadro P2000	Quadro P5000	Quadro GP100 / Quadro GV100
Autodesk Maya®	Desktop	Quadro P4000	Quadro P5000	Quadro P6000
Autodesk Maya for GPU Ray Tracing	Desktop	Quadro P6000	2x Quadro P6000	3x Quadro P6000
Maxon CINEMA 4D	Desktop	Quadro P2000	Quadro P4000	Quadro P5000
NewTek Lightwave™	Desktop	Quadro P2000	Quadro P4000	Quadro P5000
Side Effects Houdini	Desktop	Quadro P6000	2x Quadro P6000	3x Quadro P6000
Adobe After Effects CC <sup>3</sup>	Desktop	Quadro P4000	2x Quadro P5000	2x Quadro P6000
VIDEO EDITING				
Adobe® Media Encoder	Desktop	Quadro P2000	Quadro P5000	Quadro P6000
Adobe <sup>®</sup> Premiere Pro <sup>®</sup> CC	Desktop	Quadro P2000	Quadro P5000	2x Quadro P6000
Avid® Media Composer®	Desktop	Quadro P2000	Quadro P4000	Quadro P5000
Grass Valley Edius®	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Magix Vegas Pro™	Desktop	Quadro P620	Quadro P2000	Quadro P4000
IMAGE EDITING / ARTISTIC D	ESIGN			
Adobe® Photoshop® CC	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Adobe® Illustrator® CC	Desktop	Quadro P620	Quadro P2000	Quadro P4000
Allegorithmic Substance Designer	Desktop	Quadro P2000	Quadro P4000	Quadro P6000
Allegorithmic Substance Painter	Desktop	Quadro P4000	2x Quadro P4000	Quadro P6000

OIL & GAS		GOOD	BETTER	BEST	
Halliburton (Landmark) DecisionSpace®, GeoProbe®	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
Paradigm Geophysical VoxelGeo®	Desktop	Quadro P5000	Quadro P6000	2x Quadro P6000	
Paradigm Geophysical EarthStudy360®	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
Schlumberger Petrel	Desktop	Quadro P4000	Quadro P5000	Quadro P6000	
IHS KINGDOM	Desktop	Quadro P2000	Quadro P4000	Quadro P5000	

### Get the PNY Advantage.

PNY provides unsurpassed service and commitment to its wide variety of graphics customers. In addition, PNY delivers a complete solution including the appropriate adapters, cables, brackets, drivers DVD and documentation to ensure a quick and successful install.

- > 3 year warranty
- > Support for NVIDIA graphics solutions in all brands
- > Pre-and post sales assistance
- > Toll-free professional technical support
- > Dedicated Field Application Engineers

#### NVIDIA Quadro GV100 VCQGV100-PB NVIDIA Quadro GP100 VCQGP100-PB NVIDIA Quadro P6000 VCQP6000-PB NVIDIA Quadro P5000 VCQP5000-PB NVIDIA Quadro P4000 VC0P4000-PB NVIDIA Quadro P2000 VCOP2000-PB NVIDIA Quadro P1000 VC0P1000-PB NVIDIA Quadro P600 VCQP600-PB NVIDIA Quadro P400 VCQP400-PB

QUADRO

## **PROFESSIONAL GRAPHICS VS CONSUMER GRAPHICS**

NVIDIA makes industry-leading graphics cards for a variety of uses.

When you come across a customer who is using gaming cards for professional applications, make sure they are aware of the unique benefits that NVIDIA Quadro graphics cards offer.

#### BENEFITS OF PROFESSIONAL GRAPHICS OVER CONSUMER GRAPHICS

Quadro hardware is built for years of non-stop use

- > Quadro cards are built for use 24 hours a day, 7 days a week
- Extended availability and support is offered on all professional cards, including bug fixes for professional applications

Quadro boards are built for workplace environments

- > Quadro cards have more memory, smaller footprints and consume less power
- > Deployment can be for tens or hundreds of PCs in offices
- > Application certified: Quadro cards and drivers are tested to work flawlessly on 100% of certified professional software applications

Quadro provides enterprise support tools for remote administration and deployment as well as professional features such as:

- > NVIDIA® nView® for desktop management, allowing users to create grids and snap applications to them
- > NVIDIA Mosaic for combining multiple displays into one large display seamlessly without tearing
- Advanced 3D stereo supports stereoscopic 3D display on HDMI 3D TVs, projectors and displays allowing for viewing images and ultrasounds in 3D

### Performance

Professional application specific feature<br/>development and tuningImage: Section and tuningImage: Section and tuningDriver optimizations to maximize professional<br/>application performanceImage: Section and tuningImage: Section and tuningUnique features to support professional workflowsImage: Section and tuningImage: Section and tuningUnique features to support professional workflowsImage: Section and tuningImage: Section and tuningIT tools for easy deployment & managementImage: Section and tuningImage: Section and tuningGaming Profile\*Image: Section and tuningImage: Section and tuningExtreme performance scaling with Multi-GPUImage: Section and tuningImage: Section and tuning

## Reliability

Professional application specific testing by NVIDIA	•	
100+ professional application certifications by ISVs	•	
Certified across workstation paltforms by leading OEMs	•	
Unified rock-solid driver with deterministic release schedule	•	
Tested and certified by NVIDIA and OEM partners to run 24/7 with reliability & stability	•	
Extended availability	•	

### Support

Deep workflow experience across vertical industries	•	
Long-Life Cycle availability and support	•	
Bulk availability for large Enterprises	•	
Global technical pre-sales and post-sales support	•	
Online end-user forums for fast support from SMEs	•	

\* Most games will run fine on Quadro graphics cards. Enable Game Development

profile if any unexpected results occur while gaming.



Products

### **PNY Part Number**

GAMING

INTEGRATED