



# THE RIGHT TOOLS FOR PROFESSIONALS NVIDIA WORKSTATION GPUs

# **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.



- > About 10% of the users
- assemblies > Using all application features
- > About 80% of users

assemblies

> About 10% of users

> Using all application features

### DESIGN/ENGINEERING/MANUFACTURING

DESIGN/ENGINEERING/M					
Altair® HyperWorks®	Desktop	NVIDIA Quadro® RTX 4000	NVIDIA Quadro® RTX 5000	NVIDIA Quadro® RTX 6000	
	Mobile	Quadro® RTX 3000	Quadro® RTX 4000	Quadro® RTX 5000	
ANSYS <sup>®</sup> Discovery Live	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000 / Quadro GV100	
-	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
ANSYS Workbench <sup>™</sup> , ANSYS	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
AIM and ANSYS EnSight	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
ANSYS Mechanical, ANSYS	Desktop	Quadro GP100	Quadro GV100	2x Quadro GV100	
Fluent and ANSYS HFSS	Mobile <sup>1</sup>	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000	
ANSYS SPEOS	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
ANS15 51 205	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000	
Autodesk® 3ds Max®	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
Autodesk AutoCAD®	Desktop	Quadro P620	Quadro RTX 3000	Quadro RTX 4000	
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
Autodesk Fusion 360	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
Autodesk Netfabb 2018	Desktop Mobile	Quadro P620 Quadro RTX 3000	Quadro RTX 3000 Quadro RTX 4000	Quadro RTX 4000 Quadro RTX 5000	
	Desktop	Quadro P620	Quadro RTX 4000 Quadro RTX 3000	Quadro RTX 4000	
Autodesk Inventor®	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 8000	
Autodesk VRED	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
Beta CAE ANSA, META	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000	
COMSOL	Mobile	Quadro T1000	Quadro T2000	Quadro RTX 4000	
Dassault Systèmes 3DEXCITE	Desktop	Quadro RTX 5000	Quadro RTX 6000	Quadro RTX 8000	
DELTAGEN / DELTAVIEW	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
Dassault Systèmes CATIA V5-6	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 6000	
and 3DEXPERIENCE	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000	
	Desktop	Quadro RTX 5000	Quadro RTX 6000	Quadro RTX 8000	
Dassault Systèmes CATIA Live Rendering					
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
Dassault Systèmes SIMULIA	Desktop	Quadro GP100	Quadro GV100	2x Quadro GV100	
Abaqus and SIMULIA CST STUDIO	Mobile <sup>1</sup>	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000	
Dassault Systèmes	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000	
SOLIDWORKS	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000	
Dassault Systèmes	Desktop	Quadro RTX 4000	2x Quadro RTX 4000	2x Quadro RTX 6000	
SOLIDWORKS Visualize <sup>2</sup>	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000	
	Desktop	Quadro RTX 5000	2x Quadro RTX 5000	2x Quadro RTX 6000	
ESI Group IC.IDO	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000	
	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
EXA PowerViz	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
LS-PrePost	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000	
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000	
Lumiscaphe P3D Design	Desktop	Quadro RTX 5000	Quadro RTX 6000	Quadro RTX 8000	
	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000	
MathWorks MATLAB	Desktop	Quadro GV100	Quadro GV100	2x Quadro GV100	
	Mobile	Quadro RTX 5000	Quadro RTX 5000	Quadro RTX 5000	

# DESIGN/ENGINEERING/

MANUFACTURING cont.		GOOD	BETTER	BEST
MSC Nastran Desktop		Quadro GP100	Quadro GV100	2x Quadro GV100
	Mobile	Not Applicable	Not Applicable	Not Applicable
MSC Patran, Apex, ADAMS	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
MSC Fattall, Apex, ADAMS	Mobile	Quadro T1000	Quadro T2000	Quadro RTX 4000
PTC Creo	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
PTC Creo Simulation Live	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000 / Quadro GV100
FIC Creo Simulation Live	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Siemens Simcenter STAR-CCM+	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
Siemens Simcenter STAR-CCM+	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Siemens NX, SimCenter, NX	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
CAE and FEMAP	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Siemens NX + Ray Traced	Desktop	Quadro RTX 5000	Quadro RTX 6000	Quadro RTX 8000
Studio (Iray)	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Ciamana DI M Calid Edua	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
Siemens PLM Solid Edge	Mobile	Quadro P1000	Quadro P2200	Quadro RTX 3000
Siemens NX Nastran	Desktop	Quadro GP100	Quadro GV100	2x Quadro GV100
	Mobile	Not Applicable	Not Applicable	Not Applicable

#### **VIRTUAL REALITY VIEWER (VR VIEWER)**

ANSYS VRXPERIENCE	Desktop	Quadro RTX 4000	Quadro RTX 5000	up to 3x Quadro RTX 6000
	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000
Autodesk Live	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Siemens NX VR, Plant Simulations VR, TeamCenter VR	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Siemens Simcenter STAR-CCM+ VR	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000

### **ARCHITECTURE / ENGINEERING / CONSTRUCTION**

Autodesk 3ds Max®	Desktop	Quadro RTX 4000	Quadro RTX 5000	up to 3x Quadro RTX 6000
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Asstanta da ala Da Oana 2/0	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
Autodesk ReCap 360	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
Autodesk Revit®	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
Autodesk Revit	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Enscape Enscape3d	Desktop	Quadro RTX 4000	Quadro RTX 5000	up to 3x Quadro RTX 6000
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Nemetschek Allplan	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Nemetschek Graphisoft	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
ArchiCAD	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Nemetschek Vectorworks	Desktop	Quadro P620	Quadro P2200	Quadro RTX 4000
	Mobile	Quadro P620	Quadro T2000	Quadro RTX 4000

## **MODELING/ANIMATION /VISUALIZATION/EFFECTS**

Adobe After Effects CC <sup>3</sup>	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Autodesk 3ds Max	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
Autouesk Sus Max	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Autodesk Arnold	Desktop	Quadro RTX 5000	Quadro RTX 6000	2x Quadro RTX 8000
Autodesk Arnold	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000
Autodeals Marsa®	Desktop	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 6000
Autodesk Maya®	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
Chang V, Boy CBU	Desktop	Quadro RTX 4000	Quadro RTX 6000	multiple Quadro RTX 8000
Chaos V-Ray GPU	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 6000
Maxon CINEMA 4D	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
Ohaw Oatana	Desktop	Quadro RTX 4000	Quadro RTX 6000	Quadro RTX 8000
Otoy Octane	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
New Tels Linkture M	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
NewTek Lightwave <sup>™</sup>	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
Dadahift Dandanan	Desktop	Quadro RTX 4000	Quadro RTX 6000	Quadro RTX 8000
Redshift Renderer	Mobile	Quadro RTX 3000	Quadro RTX 4000	Quadro RTX 5000
	Desktop	Quadro RTX 6000	2x Quadro RTX 6000	2x Quadro RTX 8000
SideFX Houdini	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000

## **VIDEO EDITING**

Adobe Media Encoder	Desktop	Quadro P2200	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
Adobe Premiere Pro	Desktop	Quadro P2200	Quadro RTX 5000	Quadro RTX 6000
	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
Autodesk Flame	Desktop	Quadro RTX 5000	Quadro RTX 6000	2x Quadro RTX 6000
	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000



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VIDEO EDITING cont.		GOOD	BETTER	BEST
Avid® Media Composer®	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
Aviu - Media Composer -	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
Blackmagic Design DaVinci	Desktop	Quadro RTX 5000	Quadro RTX 6000	multiple Quadro RTX 6000
Resolve	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000
ColorFront Transkoder & On-	Desktop	Quadro RTX 5000	Quadro RTX 6000	multiple Quadro RTX 6000
Set Dailies	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000
Filml ight Pacalight	Desktop	Quadro RTX 5000	Quadro RTX 6000	2x Quadro RTX 6000
FilmLight Baselight	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000
Grass Valley Edius®	Desktop	Quadro P620	Quadro P2200	Quadro RTX 4000
Grass valley Eulus	Mobile	Quadro T1000	Quadro T2000	Quadro RTX 4000
Magiy Vogag Dro <sup>™</sup>	Desktop	Quadro P620	Quadro P2200	Quadro RTX 4000
Magix Vegas Pro™	Mobile	Quadro T1000	Quadro T2000	Quadro RTX 4000
RED Digital Cinema REDCINE-X	Desktop	Quadro RTX 5000	Quadro RTX 6000	2x Quadro RTX 6000
PRO	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000

#### **IMAGE EDITING / ARTISTIC DESIGN**

Adobe <sup>®</sup> Photoshop <sup>®</sup>	Desktop	Quadro P620	Quadro P2200	Quadro RTX 4000
	Mobile	Quadro P620	Quadro T1000	Quadro RTX 3000
Adobe® Illustrator®	Desktop	Quadro P620	Quadro P2200	Quadro RTX 4000
	Mobile	Quadro P620	Quadro T1000	Quadro RTX 3000
Allegorithmic Substance Designer	Desktop	Quadro P2200	Quadro RTX 4000	Quadro RTX 5000
	Mobile	Quadro T2000	Quadro RTX 4000	Quadro RTX 5000
Allegorithmic Substance Painter	Desktop	Quadro RTX 4000	2x Quadro RTX 4000	Quadro RTX 6000
	Mobile	Quadro RTX 4000	Quadro RTX 5000	Quadro RTX 5000

1 Mobile GPUs are for ANSYS HFSS and CST STUDIO only | 2 SOLIDWORKS Visualize users may require more powerful and/or multiple GPUs for improved rendering performance, depending on rendering frequency and scene complexity. 3 NVIDIA OptiX | Please request that your customer contact their software provider for the latest information on application certifications and support.

# **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	QUADRO	GAMING	INTEGRATED
Professional application specific feature development and tuning	•		
Driver optimizations to maximize professional application performance	•		
Unique features to support professional workflows	•		
IT tools for easy deployment & management	•		
Gaming Profile*	•		
Extreme performance scaling with Multi-GPU	•		
RELIABILITY			,
Professional application specific testing by NVIDIA	•		
100+ professional application certifications by ISVs	•		
Certified across workstation platforms 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.





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