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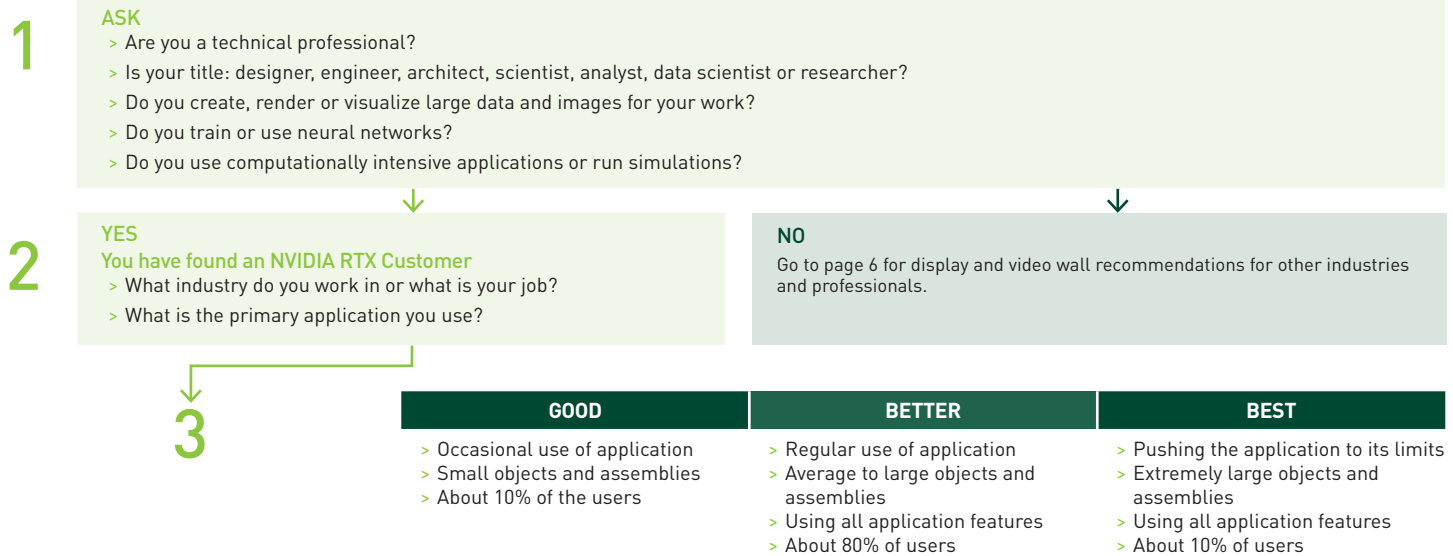
THE RIGHT TOOLS FOR
PROFESSIONALS
NVIDIA WORKSTATION GPUs



NVIDIA PROFESSIONAL SOLUTION GUIDE

Find the best professional solution for your customers based on their needs

The current NVIDIA® RTX™ lineup includes NVIDIA Volta™, Turing™, and Ampere architectures. **Please request that your customers contact their software providers for the latest information on application certifications and support.**



DESIGN/ENGINEERING/MANUFACTURING

Altair® HyperWorks®	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Altair AcuSolve®	NVIDIA RTX A5000	Quadro RTX 8000	NVIDIA RTX A6000
Altair ultraFluidX®, Altair nanoFluidX®	2x NVIDIA RTX A6000	4x NVIDIA RTX A6000	4x NVIDIA RTX A6000
Altair OptiStruct	Quadro GV100	Quadro GV100	Quadro GV100
Altair Thea Render®	NVIDIA RTX A4000	NVIDIA RTX A6000	Multiple NVIDIA RTX A6000
ANSYS® Discovery Live	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000 / Quadro GV100
ANSYS Workbench™, AIM, EnSight, LS-PrePost	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
ANSYS Mechanical, ANSYS Fluent and ANSYS HFSS	Quadro GV100	Quadro GV100	2x Quadro GV100
ANSYS HFSS SBR+	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
ANSYS SPEOS	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk® 3ds Max®	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk AutoCAD®	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Autodesk Fusion 360	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk Netfabb 2018	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Autodesk Inventor®	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Autodesk VRED	NVIDIA RTX A4000	NVIDIA RTX 5000	NVIDIA RTX A6000
Beta CAE ANSA, META	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
COMSOL	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000

DESIGN/ENGINEERING/ MANUFACTURING cont.

	GOOD	BETTER	BEST
Dassault Systèmes 3DEXCITE DELTAGEN / DELTAVIEW	NVIDIA RTX A5000	Quadro RTX 8000	NVIDIA RTX A6000
Dassault Systèmes CATIA V5-6 and 3DEXPERIENCE	NVIDIA RTX A3000	NVIDIA RTX A4000	NVIDIA RTX A6000
Dassault Systèmes CATIA Live Rendering	NVIDIA RTX A5000	Quadro RTX 8000	NVIDIA RTX A6000
Dassault Systèmes SIMULIA CST STUDIO	NVIDIA RTX A5000	NVIDIA RTX A6000	Quadro GV100
Dassault Systèmes SIMULIA Abaqus	Quadro GV100	Quadro GV100	2x Quadro GV100
Dassault Systèmes SIMULIA PowerViz	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Dassault Systèmes SOLIDWORKS	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
Dassault Systèmes SOLIDWORKS Visualize ²	NVIDIA RTX A4000	NVIDIA RTX A5000	2x NVIDIA RTX A6000
ESI Group IC.IDO	NVIDIA RTX A5000	2x NVIDIA RTX A5000	2x NVIDIA RTX A6000
Lumiscaphe P3D Design	NVIDIA RTX A5000	Quadro RTX 8000	NVIDIA RTX A6000
MSC Apex Generative Design	Quadro GV100	Quadro GV100	Quadro GV100
MathWorks MATLAB	Quadro GV100	Quadro GV100	2x Quadro GV100
Hexagon/MSC Nastran	Quadro GV100	Quadro GV100	2x Quadro GV100
Hexagon/MSC Patran, Apex, ADAMS	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
PTC Creo	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
PTC Creo Simulation Live	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000 / Quadro GV100
PTC Creo Generative Topology Optimization Extension (GTO)	NVIDIA RTX A4000	NVIDIA RTX A6000	Quadro GV100
Siemens Simcenter STAR-CCM+	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Siemens NX, Simcenter, NX CAE and FEMAP	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Siemens NX + Ray Traced Studio (Iray)	NVIDIA RTX A5000	Quadro RTX 8000	NVIDIA RTX A6000
Siemens Solid Edge	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
Siemens NX Nastran	Quadro GV100	Quadro GV100	2x Quadro GV100

VIRTUAL REALITY VIEWER (VR VIEWER)

ANSYS VRXPERIENCE	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk Live	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Beta CAE Meta VR	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Dassault Systèmes eDrawings Pro VR	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Luxion KeyShot KeyVR	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Siemens NX VR, Process Simulate VR, Teamcenter VR	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Siemens Simcenter STAR-CCM+ VR	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000

ARCHITECTURE / ENGINEERING / CONSTRUCTION

	GOOD	BETTER	BEST
Autodesk 3ds Max®	NVIDIA RTX A4000	NVIDIA RTX A5000	Up to 3x NVIDIA RTX A6000
Autodesk AutoCAD®	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Autodesk ReCap 360	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk Revit®	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Bentley ContextCapture	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Bentley LumenRT	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Bentley MicroStation	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Enscape Enscape3d	NVIDIA RTX A4000	NVIDIA RTX A5000	Up to 3x NVIDIA RTX A6000
Hexagon/BricsCAD	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Hexagon Geospatial ERDAS IMAGINE	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Hexagon Geospatial ImageStation	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Luciad Lightspeed	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
McNeel RHINO	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Nemetschek Allplan	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Nemetschek Graphisoft ArchiCAD	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Nemetschek Vectorworks	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Trimble Sketchup Pro	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000

MODELING/ANIMATION /VISUALIZATION/EFFECTS

Adobe After Effects	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Adobe Dimension	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk 3ds Max	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk Arnold	NVIDIA RTX A5000	NVIDIA RTX A6000	2x NVIDIA RTX A6000
Autodesk Maya®	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Chaos V-Ray GPU	NVIDIA RTX A4000	NVIDIA RTX A6000	Multiple NVIDIA RTX A6000
Luxion KeyShot	NVIDIA RTX A4000	NVIDIA RTX A6000	2x NVIDIA RTX A6000
Maxon CINEMA 4D	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A6000
Otoy Octane	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
NewTek Lightwave™	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
Redshift Renderer	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
SideFX Houdini	NVIDIA RTX A6000	2x NVIDIA RTX A6000	2x NVIDIA RTX A6000

VIDEO EDITING	GOOD	BETTER	BEST
Adobe Media Encoder	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Adobe Premiere Pro	NVIDIA RTX A4000	NVIDIA RTX A5000	NVIDIA RTX A6000
Autodesk Flame	NVIDIA RTX A5000	NVIDIA RTX A6000	2x NVIDIA RTX A6000
Avid® Media Composer®	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
Blackmagic Design DaVinci Resolve	NVIDIA RTX A5000	NVIDIA RTX A6000	Multiple NVIDIA RTX A6000
ColorFront Transkoder & On-Set Dailies	NVIDIA RTX A5000	NVIDIA RTX A6000	Multiple NVIDIA RTX A6000
FilmLight Baselight	NVIDIA RTX A5000	NVIDIA RTX A6000	2x NVIDIA RTX A6000
Grass Valley Edius®	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Magix Vegas Pro™	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
RED Digital Cinema REDCINE-X PRO	NVIDIA RTX A5000	NVIDIA RTX A6000	2x NVIDIA RTX A6000

IMAGE EDITING / ARTISTIC DESIGN

Adobe Photoshop	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Adobe Illustrator	NVIDIA T600	NVIDIA T1000	NVIDIA RTX A4000
Substance Alchemist	NVIDIA RTX A4000	2x NVIDIA RTX A4000	NVIDIA RTX A6000
Substance Designer	NVIDIA T1000	NVIDIA RTX A4000	NVIDIA RTX A5000
Substance Painter	NVIDIA RTX A4000	2x NVIDIA RTX A4000	NVIDIA RTX A6000

1 For visualization

2 SOLIDWORKS Visualize users may require more powerful and/or multiple GPUs for improved rendering performance, depending on rendering frequency and scene complexity.

Please request that your customer contact their software provider for the latest information on application certifications and support.



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Find the best professional solution for your customers based on their needs

ASK

- > Are you using integrated graphics?
- > Are you looking to drive a single or multiple displays or video walls?
- > Do you work in financial services, education, insurance, any commercial environments, government agencies, hospitals or call centers?

YES!

Recommend*

Are you...	Work Environment	Good	Better	Best	Background and Advantages
Using Windows 10? Customer is using integrated graphics.	Windows 10 is graphically intense. A dedicated graphics card will give a better overall user experience. For multiple displays, customer will need a dedicated graphics card.	NVIDIA T400	NVIDIA T600	NVIDIA T1000	All cards support up to four displays. For additional or high-resolution displays, recommend T600 or T1000. T600 and T1000 provide an additional port, increased performance, and more memory. T1000 includes more CUDA Cores and higher single-precision performance.
Using Linux?	Is this to drive a single display? Yes: Tends to be for a compute solution. No: Is this for high-resolution display or video wall?	NVIDIA T400	NVIDIA T600	NVIDIA T1000	For additional or high-resolution displays, recommend T600 or T1000. T600 and T1000 provides an additional port, increased performance, and more memory. T1000 includes more CUDA Cores and higher single-precision performance.
Using 4K displays?	No? Do you plan on using 4K displays in the future?	NVIDIA T400	NVIDIA T600	NVIDIA T1000	Future proof your customer for when they will use higher resolution displays as they will need more frame buffer memory. T600 provides an additional port, increased performance and more memory. T1000 includes more CUDA Cores and higher single-precision performance.
Building a video wall or using for digital signage? Do you need to drive 8 displays or more?		2x T1000	2x NVIDIA RTX A4000	2x NVIDIA RTX A5000	Two cards are needed if driving eight displays. RTX A4000 allows use of Quadro Sync II and NVIDIA Mosaic multi-display technology, and the user gets 16GB of memory and error correcting code (ECC). RTX A5000 provides 24GB of memory.
Currently using or have you used an older P-Series?	If yes, your customer has an environment that uses multiple displays.				
	Ask your customer which graphics card they use and look below for recommendations				
	Are you using P400?	NVIDIA T400	NVIDIA T600	NVIDIA T1000	Advantages of T600 is an additional port and better performance. T1000 includes more CUDA Cores and higher single-precision performance.
	Are you using P620?	NVIDIA T600	NVIDIA T1000	NVIDIA T1000	T1000 has the same number of ports, but the user gets enhanced single-precision performance.
Are you using P2200?	2x NVIDIA T1000	2x NVIDIA RTX A4000	2x NVIDIA RTX A5000	Two cards are needed if driving eight displays. RTX A4000 allows use of Quadro Sync II and NVIDIA Mosaic multi-display technology, and the user gets 16GB of memory and error correcting code (ECC). RTX A5000 provides 24GB of memory.	

*All NVIDIA RTX and Quadro graphics cards offer power efficiencies to decrease power consumption and minimize cost of ownership (TCO).

**Check with OEM manufacturer for specific feature support

ENTERPRISE GRAPHICS VS. CONSUMER GRAPHICS

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

When you come across a customer who's using gaming cards for professional applications, make sure they're aware of the unique benefits that NVIDIA RTX professional graphics cards offer.

BENEFITS OF PROFESSIONAL GRAPHICS OVER CONSUMER GRAPHICS

Enterprise graphics cards are built for years of non-stop use:

- > Designed and tested for reliable performance 24 hours a day, 7 days a week.
- > Extended availability and support is offered on all professional cards, including bug fixes for professional applications.

Enterprise graphics cards are built for workplace environments:

- > More GPU memory, smaller footprints, and less power consumption.
- > Deployment can be for tens or hundreds of PCs in offices.
- > **Application certified:** NVIDIA RTX professional graphics cards and NVIDIA RTX enterprise drivers are continuously tuned and tested for software compatibility and stability on 100% of certified professional software applications.

NVIDIA graphics cards provide enterprise support tools for remote administration and deployment, as well as professional features such as:

- > **NVIDIA RTX Desktop Manager software** features a full suite of display management tools like flexible window snapping, user profiles, window management, and hotkey support.
- > **NVIDIA RTX Experience** delivers productivity tools such as the ability to record video at up to 8K, automatic alerts for driver update, gaming features, and application optimization.
- > **NVIDIA Mosaic** display technology lets you combine up to 16 high-resolution displays or projectors to create a seamless large-scale visualization.
- > **Advanced 3D stereo** supports stereoscopic 3D display on HDMI 3D TVs, projectors, and displays, allowing for viewing images and ultrasounds in 3D.

PERFORMANCE	ENTERPRISE	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 and management	•		
Gaming profile*	•		
Extreme performance scaling with Multi-GPU	•		

RELIABILITY

Professional application-specific testing by NVIDIA	•		
100+ professional application certifications by independent software vendors (ISVs)	•		
Certified across workstation platforms by leading original equipment manufacturers (OEMs)	•		
Unified, rock-solid driver with deterministic release schedule	•		
Tested and certified by NVIDIA and OEM partners for 24/7 reliability	•		
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 subject matter experts	•		

* Most games will run fine on NVIDIA RTX and Quadro graphics cards. Enable the "Game Development" profile if any unexpected results occur while gaming.