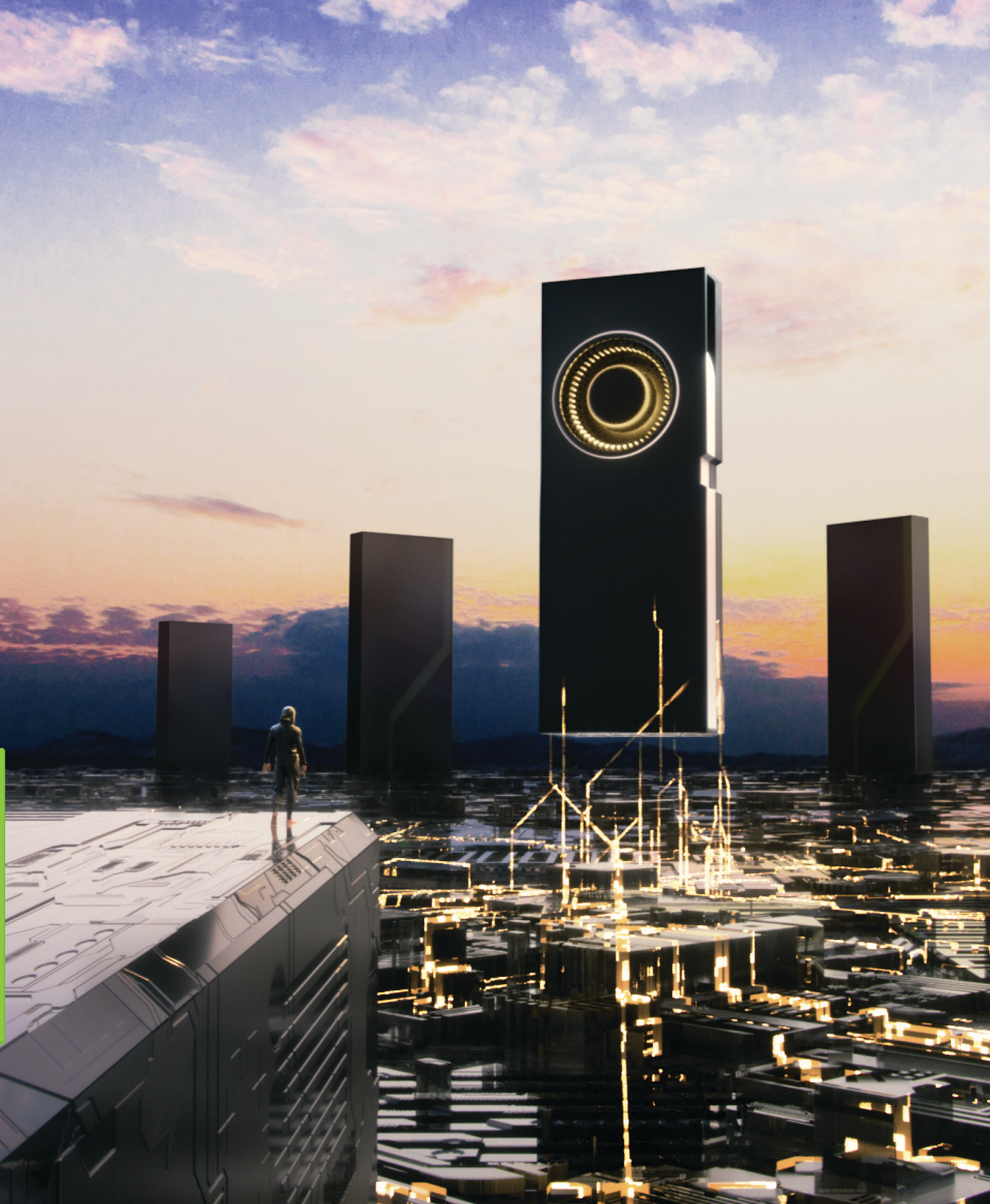


ARROW



RTX-POWERED  
SOLUTIONS







## THE FUTURE OF DESIGN RUNS ON NVIDIA RTX

NVIDIA RTX™ is the world's preeminent accelerated visual computing platform. Powered by the NVIDIA Ampere architecture, NVIDIA RTX delivers next-generation performance with real-time ray tracing, accelerated AI, and advanced graphics capabilities to desktops, laptops, and servers. Now professionals can access the technologies they need to tackle their most demanding workflows, from anywhere they need to work.

With NVIDIA RTX designers, artists, architects, and scientists get the incredible application performance, rich, expansive visual workspaces, and proven reliability they need to create revolutionary products, design energy-efficient buildings, and produce groundbreaking visual effects. It's about working better, smarter, and faster than ever before with the next generation of visual computing.

## INDUSTRY STANDARD APPLICATIONS

### BENEFITS AND PERFORMANCE MESSAGING:

#### SOLIDWORKS Visualize

SOLIDWORKS Visualize helps designers and engineers see their products in photorealistic quality early in the development pipeline and interactively visualize design changes during their workflow.

With dramatically enhanced display features, designers will experience improved functionality. The most realistic display modes, improved display performance while applying transparency to components, and extreme detail in stereoscopic 3D are just some of the features that will lead to maximum efficiency.

#### Dassault Systèmes CATIA

With NVIDIA Iray® technology natively integrated into CATIA Live Rendering, product designers can visualize predictable digital prototypes at speeds previously not possible.

Boost collaboration with interactive photorealistic viewing capabilities. Designers can view the impact of their design decisions, conduct team reviews, and reach noiseless, physically based, global illumination at unprecedented speeds.

#### Autodesk 3ds Max/Maya/Revit

Artists and animators now have intuitive workflows for bringing their vision to life with imagery that rivals photographs in a fraction of the time of traditional workflows. Best of all, they can create using materials and multiple lights that behave like those in the physical world.

Unsurpassed speeds produce superior real-time effects. Artists are enabled to experiment with camera angles, lighting, and materials with improved performance, as well as experience near physically correct photorealism, while rapidly rendering 3D designs.

#### Siemens NX Ray Traced Studio

Siemens NX users can now access NVIDIA's physically based rendering technology to predictably visualize design modifications in real time, so they can view early in the design process how products will look in real life.

Users will enjoy unrivaled speed for accelerated 3D graphics virtualization and the fastest visualization of complex photorealistic scenes. Plus, easy interaction with a realistic depiction of a model while making changes to the model itself enable full leverage of superior functionality for elevated performance.

### RTX-Enabled Applications that are currently available:

60+ of the world's top 3D applications — some of the most essential tools for design and content creation, are now accelerated with NVIDIA RTX technology. Artists and creators can interact with complex models and scenes using real-time ray-traced lighting, get faster batch rendering to speed the production process, and get access to amazing new AI creative tools.

Adobe Dimension

Designer

Substance Painter

Adobe Photoshop

Adobe Lightroom

Adobe Premiere Pro

Altair Thea Render

Ansys Speos

Autodesk Arnold, Flame, Maya and VRED

Bentley Systems Context Capture,  
LumenRT and Microstation

Blackmagic Design DaVinci Resolve

Blender Cycles

Chaos V-Ray

Chaos Vantage

Dav

DS CATIALive Rendering

DS SOLIDWORKS Visualize 2019

Daz 3D Daz Studio

Enscape 3D

Epic Games Unreal Engine

ESI Group IC.IDO 13.0

Esri ArcGIS Pro and ArcGIS  
Enterprise

Foundry Modo

Isotropix Clarisse

Luxion KeyShot 9

McNeel & Associates Rhino 7

OTOY Octane

Pixar Renderman XPU

Redshift Renderer

Siemens NX Ray Traced Studio

Unity Technologies Unity

Mars by Sheencity


Meshroom VR

[See full list of RTX-ready applications](#)



**nvidia**

**NVIDIA RTX™ for Desktop:** This chart will guide you to the best NVIDIA RTX graphics card for current and future needs.

			RTX TECHNOLOGY AND VR-READY			
	NVIDIA T400 4GB	NVIDIA T1000 8GB	NVIDIA RTX A2000 12GB	NVIDIA RTX A4500	NVIDIA RTX A5500	NVIDIA RTX A6000
			✓	✓	✓	✓
MEMORY	4GB GDDR6	8GB GDDR6	12GB GDDR6	20GB GDDR6	24GB GDDR6	48GB GDDR6
TARGET USE						AI Development
	Oil & Gas					
	Manufacturing / Design					
	Medical					
	AEC					
	Media & Entertainment					
GRAPHICS & RENDERING						Up to 15% faster rendering performance <sup>2</sup>
						Up to 23% faster rendering performance <sup>1</sup>
						Up to 92% faster rendering performance <sup>1</sup>
						Up to 57% faster rendering performance <sup>5</sup>
	Up to 53% faster graphics performance <sup>5</sup>					
	Up to 3x faster graphics performance <sup>3</sup>					
AI						Up to 18% faster AI performance <sup>4</sup>
						Up to 25% faster AI performance <sup>4</sup>
						Up to 154% faster AI performance <sup>4</sup>
	Accelerated AI applications					
RAY TRACING	Accelerated ray tracing					
ADDITIVE BENEFITS						Virtualization support
						NVLink multi-GPU support
						Sync II
	NVIDIA Mosaic					
Benefits						
GREAT FOR	<ul style="list-style-type: none"><li>• Small/simple CAD models</li><li>• HD Video</li><li>• PLM</li><li>• Photo editing</li><li>• Multi-display</li></ul>	<ul style="list-style-type: none"><li>• Medium size/complex CAD Models</li><li>• HD/4k Video, 3D Models &amp; Images</li><li>• PLM</li><li>• Basic DCC</li><li>• Medical Imaging</li></ul>	<ul style="list-style-type: none"><li>• Medium size/complex CAD Models</li><li>• HD/4k Video, 3D Models &amp; Images</li><li>• PLM</li><li>• Accelerated ray tracing and AI workflows</li><li>• Reliability with ECC</li><li>• Low profile form factor</li><li>• AI-powered creative workflows</li></ul>	<ul style="list-style-type: none"><li>• Large/complex 3D models</li><li>• More RT and Tensor Cores for enhanced ray tracing and AI performance</li><li>• Advanced DCC</li></ul>	<ul style="list-style-type: none"><li>• Largest/complex CAD/3D/AI models</li><li>• More RT and Tensor Cores for enhanced ray tracing performance and AI performance</li><li>• Seismic exploration</li><li>• Advanced DCC</li></ul>	<ul style="list-style-type: none"><li>• Largest, most complex 3D models</li><li>• Additional RT and Tensor Cores for ray tracing and AI performance</li><li>• Expandable memory with NVLink (up to 96GB) for largest datasets and workloads including deep learning, data science and simulation</li><li>• More compute power</li><li>• Ideal for AI development</li></ul>

Performance may vary by system, scene, or dataset.

1 SPECviewperf 2020 4K geomean score - Intel Xeon Gold 6154@3.00GHz 3.70GHz Turbo (Skylake-SP) HT On, Driver version 511.47 for RTX A4500, A5500 and A6000. Driver version 495.97 for RTX A2000 12GB.

2 SPECviewperf 2020 4K energy viewset score - Intel Xeon Gold 6154@3.00GHz 3.70GHz Turbo (Skylake-SP) HT On, Driver version 511.47 for RTX A4500, A5500 and A6000.

3 SPECviewperf 2020 4K geomean score - Intel Xeon Gold 6154@3.00GHz 3.70GHz Turbo (Skylake-SP) HT On, Driver version 472.06; vs iGPU based on Intel UHD 630.

4 Optix Denoiser 4K - Dual Intel Xeon Gold 6126@2.60GHz 3.70GHz Turbo (Skylake-SP) HT On, 256GB DDR4, Driver version 511.47 for RTX A4500, A5500 and A6000. Driver version 511.09 for RTX A2000 12GB.

5 SPECviewperf 2020 4K geomean score - Intel Xeon Gold 6154@3.00GHz 3.70GHz Turbo (Skylake-SP) HT On, Driver version 472.06 for T400 GB and T1000 8GB and RTX A2000 12GB.