A powerful partnership that inspires innovative collaboration

NVIDIA and Dell Technologies

Dell Technologies is committed to offering innovative solutions to help customers manage their collaborative and performance-intensive workflows by combining the power of Dell Precision workstations and NVIDIA RTXTM GPUs with NVIDIA Omniverse Enterprise software to create complete solutions for any sized organization.

For end users of Omniverse Enterprise, RTX -equipped Dell Precision workstations are a must to take full advantage of the real-time ray tracing those graphics cards enable. The Dell Precision 7960 Tower, which provides ultimate performance and scalability, can be equipped with up to four NVIDIA RTX A6000 cards (48GB VRAM each) and can support up to 4 TB of DDR5 4,800 MT/S ECC memory for the most demanding 3D workloads.

The Dell Precision 7780 workstation with NVIDIA RTX Ada Generation graphics was made to help you maximize your workspace and scale your performance. With Dell Optimizer for Precision, AI and VR capabilities and ISV certification, bring life to the ideas that shape our world.

The power that Dell brings to the table is the scalability of the solutions and the potential to transform every stage of the 3D production workflow.

What is Omniverse Enterprise?

NVIDIA Omniverse is a scalable development platform for building and operating custom 3D pipelines and industrial metaverse applications. Based on Universal Scene Description (USD), Omniverse fundamentally transforms complex 3D workflows, allowing individuals and teams to connect disparate 3D tools and datasets, and simulate large-scale, physically accurate virtual worlds for industrial and scientific use cases.

Addressing the Challenges in Modern Workflows

Organizations in visual industries are facing unique challenges with the rise in remote workforces and increasingly complex 3D workloads. Enabling teams to collaborate on 3d assets with various machines scattered across geographic locations is a task that enterprise IT needs a solution for.

NVIDIA Omniverse Enterprise enables organizations to aggregate and visualize, iterate, and collaborate on assets using various industry-standard creative applications to deliver real-time results in full fidelity.

Providing solutions

Platform Features

- Premier Universal Scene Description collaboration platform and custom workflow toolkit
- Compatible with top industry digital content creation software
- Scalable, multi-GPU-enabled physically accurate rendering and simulation
- Python-based modular development platform for quickly and easily building powerful 3D tools and services

Benefits of Omniverse Enterprise

Omniverse simplifies design workflows for both individual users and globally dispersed teams of any scale.

Built on Universal Scene Description

With USD, enterprise teams can aggregate, visualize, simulate, and collaborate on full-design-fidelity datasets from hundreds of 3D applications without the need to decimate data.

Easily Extensible Customizable

Omniverse Enterprise lets developers and technical artists easily build advanced, AI-enabled tools in a low-code environment, to connect or accelerate their existing 3D pipelines with Python script.

Scalable from Desktop to Data Center

Based on NVIDIA PhysX®, MDL, and RTX, Omniverse Enterprise lets teams scale physically accurate visualization and simulation from desktop to data center.

Full Enterprise Support

Minimize system downtime and ensure mission-critical projects stay on track with NVIDIA's enterprise-level support.

Unlocking Real-Time, Full-Fidelity Content Collaboration

Dell Precision 7780 Workstation

Put power behind your purpose.
Intelligence and machine learning elevate productivity by automating performance features beyond your PC, across your entire ecosystem.

Dell Precision 7960 Rack

An ultra scalable 2U rack workstation.
Be productive from almost anywhere with a powerful, secured access rack based solution that keeps your intellectual property safely in the data center.

Dell Precision 7960 Tower

Amplify your productivity.
Scale performance to meet your highest requirements, deliver projects with record speed, while fitting more iterations within your project timelines.

Recommended Systems

With industrial digitalization and metaverse applications based on NVIDIA Omniverse comes massive demand for rich, compute-heavy AI, large-scale graphics, and real-time simulation workloads. Handle the most demanding industry applications with Dell Precision workstations optimized for performance, reliability and user experience.

Data Center – Scalable performance for the most demanding Omniverse workflows.

Good	Better	Best NVIDIA OVX Systems
GPU: A10, A40, L40	**GPU:** A10, A40, L40	**GPU:** L40
CPU: 3.0 GHZ, 4-6 Cores	**CPU:** 3.0 GHZ, 6-10 Cores	**CPU:** 3.0 GHZ, 10-16 Cores
System Memory: 64GB	**System Memory:** 128GB	**System Memory:** 256GB
Storage: 500GB	**Storage:** 1TB	**Storage:** 1.5TB+
vGPU Profile: vgpu_A10_24q, vgpu_A40_24q, vgpu_L40_24q	**vGPU Profile:** vgpu_A10_24q, vgpu_A40_48q, vgpu_L40_48q	**vGPU Profile:** vgpu_L40_48q

Desktop Workstations – Powerful visual computing, AI, and simulation capabilities from your desktop.

Good	Better	Best
GPU: NVIDIA RTX 6000 Ada Generation	**GPU:** 2x NVIDIA RTX 6000 Ada Generation	**GPU:** 4x NVIDIA RTX 6000 Ada Generation
CPU: Intel Xeon w3-2435 Processor	**CPU:** Intel Xeon w5-2455X Processor	**CPU:** Intel Xeon w5-3435X Processor
System Memory: 128 GB ECC DDR5	**System Memory:** 256 GB ECC DDR5	**System Memory:** 1 TB ECC DDR5
Storage: 1TB boot + 2 TB SSD, SATA, NVMe	**Storage:** 1TB boot + 2-4 TB SSD, SATA, NVMe	**Storage:** 2 TB boot + 2-4 TB SSD, SATA, NVMe
NIC: 10 GbE NIC	**NIC:** ConnectX6-DX	**NIC:** ConnectX6-DX
OS: Win 10/11, Ubuntu 20.04, CentOS7	**OS:** Win 10/11, Ubuntu 20.04, CentOS7	**OS:** Win 10/11, Ubuntu 20.04, CentOS7

Mobile Workstations – Bring advanced graphics, AI, and collaboration capabilities anywhere.

Good	Better	Best
GPU: NVIDIA RTX 3000 or RTX 3500 Ada Generation Laptop GPU	**GPU:** NVIDIA RTX 4000 Ada Generation Laptop GPU	**GPU:** NVIDIA RTX 5000 Ada Generation Laptop GPU
CPU: Intel Core i5-13500H Processor	**CPU:** Intel Core i7-13700H Processor	**CPU:** Intel Core i7-13700H or HX Processor
System Memory: 16 GB DDR5	**System Memory:** 32GB DDR5	**System Memory:** 32 GB DDR5
Storage: 256 GB NVMe	**Storage:** 512 GB NVMe	**Storage:** 512GB NVMe
OS: Win 10/11, Ubuntu 20.04, CentOS7	**OS:** Win 10/11, Ubuntu 20.04, CentOS7	**OS:** Win 10/11, Ubuntu 20.04, CentOS7

See Omniverse Enterprise in Action

See how companies across the world's largest industries are using NVIDIA Omniverse Enterprise to design, build, and operate digital twins of factories, warehouses, industrial production lines, and more.

NVIDIA Omniverse and DLSS 3 technology make it possible to design and collaborate on hyper realistic environments from anywhere. Connecting apps, people, and ideas in real time to unlock full-design-fidelity, real-time virtual worlds.
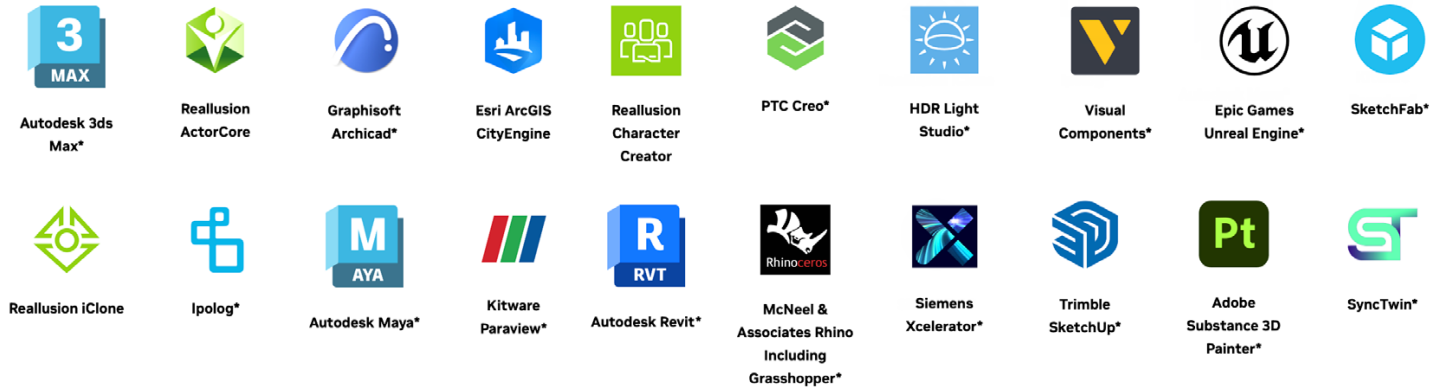
Unite Complex 3D Workflows

Omniverse is a first-class platform for adopting USD-based workflows. Connect your favorite industry-leading 3D tools for streamlined pipelines or build your own USD applications.

USD Connections to Omniverse

Autodesk 3ds Max*	Reallusion ActorCore	Graphisoft Archicad*	Esri ArcGIS CityEngine	Reallusion Character Creator	PTC Creo*	HDR Light Studio*	Visual Components*	Epic Games Unreal Engine*	SketchFab*
Reallusion iClone	Ipolog*	Autodesk Maya*	Kitware Paraview*	Autodesk Revit*	McNeel & Associates Rhino Including Grasshopper*	Siemens Xcelerator*	Trimble SketchUp*	Adobe Substance 3D Painter*	SyncTwin*

Omniverse Foundation Applications

NVIDIA Omniverse™ USD Composer

For technical artists, designers, and engineers, Omniverse USD Composer accelerates advanced scene composition and allows users to interactively assemble, light, simulate, and render scenes in Pixar USD in real-time.

NVIDIA Omniverse™ USD Presenter

For reviewers, clients, and project managers, Omniverse USD Presenter powers seamless collaborative design and immersive visualization of design and simulation projects.

NVIDIA Isaac Sim™

For developers and researchers, Isaac Sim is a scalable robotics simulation application and synthetic data generation tool that powers photorealistic, physically accurate virtual environments to develop, test, and manage AI-based robots.

Ready to get started using your favorite connector? See the complete list of Connect DCC applications

Case Studies

AECO

OutdoorLiving3D architectural firm saved over $8,000+ in render farm costs and achieved a 296% increase in annual output by switching to collaborative Omniverse workflows and renderers.

Energy

UK Atomic Energy Authority (UKAEA) used Omniverse to connect disparate 3D design, engineering, and simulation tools to keep scientific, engineering, and design experts and their data in sync at all times and enable collaboration on a single source of truth. In the future they expect their simulation efforts will boost performance, improve predictive maintenance, and reduce downtime.

Manufacturing

BMW Group gained 30% more efficiency in resource utilization by using Omniverse's real-time collaborative design capabilities.

"This is transformative — we can design, build and test completely in a virtual world."

- Milan Nedeljković, Board of Management at BMW Group

"When we're looking at new products and processes, we will use digital twins to simulate and test models and environments in real time before applying changes to the physical distribution centers."

— Qi Wang, Vice President of Research and Development at PepsiCo.

M&E

Sony Pictures Animation - Updating models is now 5-10 minutes, rather than 5 days that included file transfers, scene loading, and compiling.

China Media Group - The speed of rendering large scenes Omniverse is 2-3 times that of UE4 (the same GPU configuration, RTX A6000). Anticipates gaining a 30-40% time savings from pre-, production, and post-production with continued implementation of NVIDIA Omniverse.

MoonShine Animations estimates they accumulated **50%** time savings due to Omniverse's AI-enabled new review methods.

Telco

Ericsson used Omniverse to identify key path disruptions in order to design more efficient, reliable networks tuned for optimal performance. Simulation allows them to conduct remote field trials and speed up deployments.

Retail

Amazon Robotics - Omniverses synthetic data generation capabilities enabled their team to explore ML approaches for fiducial marker detection, leading to improvements in detection accuracy of over 70% compared to CV approaches using the same synthetic data.

PepsiCo, by using Omniverse to test variations in layout before making any physical investments, optimized workflows, accelerated throughput, streamlined supply chain operations, reduced energy consumption, and advanced their mission towards sustainability.

"Sony Pictures Animation always pushes the boundaries of creativity, in both our storytelling and our visuals. NVIDIA Omniverse provides an exciting foundation for continued innovation toward that goal."

— Yiotis Katsambas, Executive Director of Technology at Sony Pictures Animation

DELLTechnologies

NVIDIA Omniverse™
Enterprise

For more information:

Learn more about NVIDIA Omniverse™ Enterprise
and a Free 30-Day Evaluation through Dell.

Questions? Contact your Dell Sales Rep or email us
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