

5 Reasons Why Manufacturers Develop on NVIDIA Omniverse™ Enterprise



At a Glance

With NVIDIA Omniverse™ Enterprise and Dell Precision™ workstations, manufacturers are streamlining collaboration, accelerating time to market, and optimizing operations with digital twins at various scales (product, process, factory, supply chain, etc.). Discover how developers, engineers, and designers use tools and applications developed on NVIDIA Omniverse Enterprise to transform product development and factory operations.

	<p>Simplify collaboration among distributed teams and across applications</p>	<ul style="list-style-type: none"> • Unify previously incompatible 3D data, enabling designers and engineers to work together in a single, real-time collaboration space. • Easily connect CAD tools and data with OpenUSD, streamline handoffs, and accelerate product development through faster design reviews.
	<p>Accelerate time to market with next-gen visualization and simulation</p>	<ul style="list-style-type: none"> • Effortless visualization of large scenes and environments in full-fidelity. Open architecture enables fast creation of custom pipelines for specific workflows. • Reduce the time and cost required for traditional prototyping and testing by designing, building, and testing products in physically accurate 3D simulations.
	<p>Optimize operations with digital twins and AI-powered insights</p>	<ul style="list-style-type: none"> • Design digital twins before constructing factories to minimize risk, then maintain them after construction to improve maintenance, quality control, and safety with real-time, AI-enabled monitoring. • On the factory floor, quickly execute processes through autonomous collaboration between robots and other machines.
	<p>Maximize NVIDIA Omniverse Enterprise benefits with Dell Precision™ workstations</p>	<ul style="list-style-type: none"> • Dell Precision AI-ready workstations deliver the performance, scalability, and reliability you need to take full advantage of applications developed on NVIDIA Omniverse Enterprise. • Certified by NVIDIA, Dell Precision workstations support real-time ray tracing, machine learning, and VR for advanced collaboration, visualization, and simulation.
	<p>Proven at major manufacturing companies</p>	<ul style="list-style-type: none"> • Using digital twin solutions developed on NVIDIA Omniverse Enterprise and OpenUSD, Mercedes reduced coordination processes in their production and assembly facilities by up to 50%. • Now, Mercedes can reconfigure assembly lines for new vehicles in simulation without interrupting current production. <p>Watch Video</p>

Technical Deep Dive

Dell Precision™ workstations powered by NVIDIA RTX™ Ada Generation GPUs

Take full advantage of applications developed on NVIDIA Omniverse Enterprise when you configure Dell Precision AI-ready workstations with up to four NVIDIA RTX 6000 Ada Generation GPUs, each touting 48GB of VRAM; NVIDIA high-performance networking; and up to two CPUs. Combine Dell Precision workstations with high-performance Dell PowerEdge servers for a full end-to-end solution.

Integrate preferred tools seamlessly with proven applications and connectors

NVIDIA Omniverse Enterprise offers developers a rich catalog of third-party extensions that can be easily modified for their workflow. Omniverse Connectors provide the highest fidelity connection with live-link workflows between third-party applications.

Automate repetitive tasks to focus on higher-level projects

Automate repetitive tasks with predictive capabilities and natural language processing when you embed AI into your workflows. With NVIDIA Omniverse Enterprise, you can develop intelligent applications to analyze data, recognize patterns, and make predictions.

Create and deploy custom workflows and apps in a low-code environment

Build Python apps and extensions without programming expertise, thanks to NVIDIA Omniverse's easy-to-use developer tools. Get started quickly with fully customizable foundation apps, which are best-practice implementations of native OpenUSD apps for 3D data aggregation.

Aggregate files automatically with USD

Spend less time importing and exporting 3D and CAD files and transferring data between tools with nondestructive interoperable workflows. Applications developed on NVIDIA Omniverse Enterprise and OpenUSD support a wide range of software and file formats, including Autodesk Revit, PTC Creo, Siemens Xcelerator, Trimble SketchUp, to name a few. [See Full List](#)

Next Steps

Email us at omniverse@dell.com to learn more about developing on NVIDIA Omniverse Enterprise and OpenUSD with Dell Precision workstations.

Contact Us

Discover Solutions

Read White Paper

