

NVIDIA Launches Omniverse for Developers: A Powerful and Collaborative Game Creation Environment

NVIDIA Omniverse Speeds Development by Providing Real-Time, Cooperative Design Platform for In-Game Art and Virtual Worlds

Game Developers Conference—Enriching its game developer ecosystem, NVIDIA today announced the launch of new NVIDIA Omniverse™ features that make it easier for developers to share assets, sort asset libraries, collaborate and deploy Al to animate characters' facial expressions in a new game development pipeline.

With the NVIDIA Omniverse real-time design collaboration and simulation platform, game developers can use AI- and NVIDIA RTX[™]-enabled tools, or easily <u>build custom ones</u>, to streamline, accelerate and enhance their development workflows. New features for game developers include updates to Omniverse Audio2Face[™], Omniverse Nucleus Cloud and Omniverse DeepSearch, as well as the introduction of Unreal Engine 5 Omniverse Connector.

"Omniverse provides a powerful development pipeline that addresses the challenges of doing business in today's world," said Frank DeLise, vice president of Omniverse at NVIDIA. "Its ability to unify artists, art, tools and applications under a single platform can inspire collaboration among even the most dispersed game development organization."

A Powerful, More Collaborative Game Creation Environment

Game development pipelines are becoming increasingly complex as artists and designers work to exceed gamers' expectations for enormous, immersive worlds. Global teams of artists work to build massive libraries of 3D content — a labor-intensive, time-consuming process made more challenging when incorporating realistic lighting, life-like physics and Alpowered technologies.

Omniverse addresses these challenges and helps game developers build photorealistic, physically accurate games more seamlessly by <u>connecting artists</u>, their assets, and software tools in one powerful platform. The collaborative aspect of Omniverse can dramatically decrease iteration time on critical design decisions, expediting project completion.

Omniverse is a multi-GPU-enabled open platform for 3D design collaboration and real-time physically accurate simulation. It runs on any NVIDIA RTX device — from a laptop to a server — transforming complex 3D production workflows. Omniverse is built on Pixar's <u>Universal Scene Description (USD)</u>, an easily extensible, open-source 3D scene description and file format for content creation and interchange among most popular major game development tools. NVIDIA has expanded upon USD by developing new tools, integrating technologies and providing samples and tutorials.

Game creators, designers, artists and developers can unite their assets, libraries, software applications and game engines within Omniverse, freely iterate on design concepts in real time, build tools to enhance productivity and instantly share breathtaking, high-fidelity models.

Omniverse for Game Developers

The Omniverse platform is designed for maximum flexibility and scalability. Developers can easily build their own tools using the <u>platform's modular building blocks</u>. Game developers can use the ready-made Omniverse Apps, with many more being built by third parties.

Components featured in the Omniverse platform for game developers include:

- Omniverse Audio2Face, an NVIDIA Al-powered application that enables character artists to generate high-quality facial
 animation from just an audio file. Audio2Face now supports full facial animation and artists will have the ability to
 control the emotion of the performance as well. With Audio2Face game developers can quickly and easily add realistic
 expressions to their game characters, which can facilitate a stronger emotional connection between the gamer and the
 game characters, expanding immersion.
- Omniverse Nucleus Cloud, now in early access, enables one-click simple sharing of Omniverse scenes, removing the need to deploy Nucleus locally or in a private cloud. With Nucleus Cloud, game developers can easily share and collaborate in real time on 3D assets among internal and external development teams.
- Omniverse DeepSearch, an Al-enabled service now available for Omniverse Enterprise subscribers, that allows game
 developers to use natural language inputs and imagery to instantly search through their entire catalog of untagged 3D
 assets, objects and characters.
- Omniverse Connectors are plugins that enable "live sync" collaborative workflows between third-party design tools and Omniverse. The new Unreal Engine 5 Omniverse Connector allows game artists to exchange USD and material definition language data between the game engine and Omniverse.

Learn more about NVIDIA Omniverse. Game developers can learn more about creating games with Omniverse on the

NVIDIA Developer website.

About NVIDIA

NVIDIA's (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market and has redefined modern computer graphics, high performance computing and artificial intelligence. The company's pioneering work in accelerated computing and AI is reshaping trillion-dollar industries, such as transportation, healthcare and manufacturing, and fueling the growth of many others. More information at https://nvidianews.nvidia.com/.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact, performance, features, and availability of our products and services, including the Omniverse platform, Omniverse Audio2Face, Omniverse Nucleus Cloud, Omniverse DeepSearch, and Omniverse Connectors; game development pipelines becoming increasingly complex as artists and designers work to exceed gamers' expectations for enormous, immersive worlds; the challenges of building massive libraries of 3D content; and many more Omniverse apps being built by third parties are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the most recent reports NVIDIA files with the Securities and Exchange Commission, or SEC, including, but not limited to, its annual report on Form 10-K and quarterly reports on Form 10-Q. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forwardlooking statements to reflect future events or circumstances.

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