Ansys Announces Agreement to Offer Access to NVIDIA Omniverse Technology from within Simulation Solutions

Integration of Omniverse into Ansys applications offers a seamless solution for embedding, distributing, and supporting Omniverse technologies through global network of thousands of direct sellers and channel partners

Key Highlights

- Ansys integrates NVIDIA Omniverse capabilities directly into its products, starting with autonomy and computational fluid dynamics (CFD) solutions, delivering simplified data preparation, interoperability, and access to the Omniverse ecosystem
- The agreement accelerates physical AI development, enhances digital twin capabilities, and delivers immersive visualizations in a virtual environment, accelerating innovation across industries

PITTSBURGH, Aug. 12, 2025 /PRNewswire/ -- Ansys, part of Synopsys (NASDAQ: SNPS) and NVIDIA signed an agreement to license, sell, and support Omniverse technology embedded in Ansys simulation solutions. Through its integration of NVIDIA Omniverse™, Ansys will deliver easy access to Omniverse technologies and libraries to customers, starting with its CFD and autonomous solutions. From deepening insights into aerodynamics to advancing autonomous vehicle safety and 6G connectivity, this collaboration fuels progress that empowers transformative solutions.

Ansys technology utilizes Universal Scene Description (OpenUSD) to integrate seamlessly with Omniverse technologies, enabling accessible, smooth workflows across diverse simulation applications. By leveraging Omniverse platform capabilities directly from the Ansys interface, teams are empowered to innovate faster, tackle challenges head-on, and achieve research breakthroughs.

The agreement ensures seamless interoperability between diverse computer-aided engineering (CAE) tools, enabling a unified and efficient workflow — critical to large CFD applications. Visualizing fluid dynamics in physically based digital environments enables engineers to analyze complex datasets more intuitively, resulting in smarter, faster design optimization for even the most challenging engineering tasks.

In addition, the integration empowers engineers with high-fidelity outputs, making it easier to develop, train, test, and validate autonomous systems with greater speed and confidence. By automating scenario generation and exploration, it ensures these autonomous systems are continuously validated for safety, precision, efficiency, and reliability.

"Product development processes are only getting more complex, so modern teams need a virtual environment that allows them to simulate, visualize, iterate, and collaborate," said Walt Hearn, senior vice president of worldwide sales and customer excellence at Synopsys. "By integrating advanced Omniverse technologies and libraries, our customers drive innovation in simulation-led workflows, empowering teams to achieve greater efficiency, performance, and scalability."

Moreover, PyAnsys, a family of Python packages, enables users to customize and automate simulations within their own applications built on NVIDIA Omniverse. One illustrative example highlighting this joint work with NVIDIA is PyAnsys-Heart, a digital twin of the human heart that unlocks transformative simulation insights through an intuitive speech-to-text interface requiring minimal engineering expertise.

"To address the complexity of modern engineering challenges, industries require precise physical AI models, highly accurate digital twins, accessible high-resolution simulation tools, and physics-accurate virtual environments to solve real-world problems and enable reliable performance predictions," said Rev Lebaredian, vice president of Omniverse and simulation at NVIDIA. "Combining the predictive power of Ansys solvers with NVIDIA simulation technologies and libraries is a turning point for industries striving to simulate reality with precision."

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is the leader in engineering solutions from silicon to systems, enabling customers to rapidly innovate AI-powered products. We deliver industry-leading silicon design, IP, simulation and analysis solutions, and design services. We partner closely with our customers across a wide range of industries to maximize their R&D capability and productivity, powering innovation today that ignites the ingenuity of tomorrow. Learn more at www.synopsys.com.

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