



Ansys 2025 R2 Enables Next-Level Productivity by Leveraging AI, Smart Automation, and Broader On-Demand Capabilities

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Foster synergy, streamline workflows, and shorten time-to-market with new AI-driven tools and enhancements to Ansys simulation technology

/ Key Highlights

- [Ansys Engineering Copilot™](#), a new multifunctional virtual AI assistant integrated into Ansys, now part of Synopsys, products, equips users with one-click access to over 50 years of simulation expertise, learning resources, and AI-powered support from within the Ansys user interface (UI)
- Seven Ansys products feature built-in AI functionality called AI+ that make simulations easier, faster, and more accessible, including the new [Ansys Missions AI+ ODTK™](#) tool for orbital accuracy
- The latest release enhances data management and workflow automation, improves AI for smarter design insights, and empowers businesses to efficiently track, organize, and utilize the data required to maximize the benefits of AI integration

PITTSBURGH, July 29, 2025 /PRNewswire/ -- [Ansys](#), now part of Synopsys, (NASDAQ: SNPS) today announced 2025 R2, featuring new AI-powered capabilities across the portfolio that accelerate simulation and expand accessibility. R2 also delivers enhanced solvers, streamlined workflows, and improved engineering agility with expanded Python compatibility and on-demand cloud computing. Ansys technology drives impact by enabling teams to scale models, explore more innovative design possibilities, and make intelligent product decisions earlier, from next-generation satellites to datacenter design.

"Ansys simulation is the touchstone of reality when it comes to physics, bridging the theoretical with the experimental," said Shane Emswiler, senior vice president of products at Ansys. "With over 50 years of expertise in advanced physics computation, 2025 R2 continues to push the envelope by delivering enhancements for smarter, faster, and more complex simulations. Ansys technology provides the framework to make data meaningful through models, metadata, traceability, and standards — empowering more innovative products now and in the future."

Ansys 2025 R2 amplifies human ingenuity with AI-driven tools and features that simplify simulation adoption, encourage collaboration, and boost productivity across teams.

Physics-based AI for Intuitive Simulations

Ansys 2025 R2 introduces Ansys Engineering Copilot — a secure, robust, and reliable virtual assistant built on decades of Ansys technical expertise. It delivers AI-driven assistance directly within Ansys products with a consistent, seamless user experience and instant access to a vast knowledge base. This includes [AnsysGPT™](#) — which integrates Microsoft Azure AI Foundry, including Azure OpenAI in Foundry Models — ~~a~~ Ansys websites, thousands of articles, over 800 innovation courses, a global user forum, and enables the creation and tracking of support cases.

"We're pleased to collaborate with Ansys as they continue to develop and integrate innovative AI solutions for their customers," said Nidhi Chappell, Vice President, Azure AI Infrastructure at Microsoft. "Integrating Microsoft Azure AI Foundry with AnsysGPT allows engineers to quickly access critical information and take advantage of the deep engineering expertise from Ansys to enhance productivity and accelerate innovation."

2025 R2 adds AI capabilities across the Ansys portfolio to automatically create, validate, and optimize high-fidelity simulation — speeding model creation, reducing manual effort, and mitigating human error.

- Ansys Engineering Copilot is available in [Ansys Mechanical™](#), [Ansys Discovery™](#), [Ansys Fluent®](#), [Ansys HFSS™](#), [Ansys Electronics Desktop \(AEDT\)™](#), [Ansys Scade One™](#), [Ansys Speos®](#), [Ansys Maxwell®](#), [Ansys optiSLang®](#), and [Ansys Lumerical](#) products, connecting engineers to engineering expertise with one click
- 17x faster results for radiation pattern calculations and more precise phased array antenna beam steering simulations with HFSS — critical to applications like 5G/6G, radar sensors, and satellite communications
- Seven Ansys products feature built-in AI functionality called AI+ that make simulations easier, faster, and more accessible, including the new Ansys Missions AI+ ODTK tool for orbital accuracy
- Integrating optiSLang and the [Ansys SimAI™](#) platform accelerates dataset creation and AI training

Combining these capabilities with improved data handling and automation allows organizations to unlock new efficiencies and create streamlined, scalable workflows.

Maximize Results Through Improved Data Handling and Automation

The latest release advances digital engineering by simplifying data handling and management tasks — boosting efficiency and collaboration across the enterprise. Robust data management strategies enable companies to unlock the full utility of their data throughout the product life cycle, train AI

models, and generate synthetic data with confidence. In addition, enhancements in model-based systems engineering (MBSE) enable teams to collaborate from a single source of truth, ensuring digital continuity and cross-team collaboration.

Expanded Python compatibility adds another layer of flexibility, allowing engineers to create customized automation that accelerates workflows, boosts data management, and ensures project repeatability.

For example, Danfoss Drives, a global leader in energy-efficient motor control solutions, uses Ansys simulation to validate complex system designs, empowering industries to optimize performance, reduce energy consumption, and enhance operational reliability through innovative drive technology.

"PyAnsys™ is critical to enabling custom workflow automation, integration, and scalability across our simulation environment," said Michael Laursen, head of virtual design, test & optimization, Danfoss Drives. "The open ecosystem allows us to connect tools and leverage AI for an accelerated end-to-end workflow. Ansys technology helps our teams advance and maximize our digital design processes to keep pace with an ever-changing industry, all while reducing costs and speeding product development."

- Over 40 Python libraries within the [PyAnsys™](#) collection, now featuring PySTK™ and PyChemkin™, which offers a Python interface to Ansys solutions to automate workflows and drives higher productivity and efficiency across applications
- Reduce cybersecurity risks by automating threat analysis and vulnerability management in the new web-based, fully cooperative solution [Ansys medini® Cybersecurity SE](#)
- Directly connect software, safety, and simulation in one solution with the SysML v2 web-based platform [Ansys System Architecture Modeler \(SAM\)™ Enterprise](#), delivering a comprehensive MBSE methodology

Embracing smart automation and comprehensive data management enables teams across the enterprise to work more seamlessly. With advanced computational tools, insights quickly transform into action, empowering teams to execute with confidence and precision.

Replicate Reality with Advanced Computation

Solving complex design challenges requires advanced physics models and simulations that replicate real-world conditions. To help customers drive innovation, Ansys continues to enhance its core technology to empower users to achieve significantly faster results and unlock new opportunities in product development.

- Faster performance on large transient models with the new mixed solver in Ansys Mechanical, now supporting efficient analysis of thermal changes over time
- Eliminate manual setup and improve the speed, rendering, and usability of meshing complex, stacked electronics systems with the new mesh flow in Mechanical
- [Ansys Rocky™](#) and [Ansys FreeFlow™](#) provide advanced multiphysics capabilities, including thermal, fluid-structure, and electromagnetic coupling for detailed simulations and performance optimization
- [Ansys PowerX™](#) debugging tool significantly reduces design time in semiconductor power devices by quickly identifying parasitic issues, streamlining setup tasks, and enabling efficient 2D meshing

To illustrate, Ampleon, a pioneer in RF power, leverages advanced simulation technology to design dependable, high-performance GaN and LDMOS solutions for 4G LTE, 5G NR infrastructure, as well as for industrial, scientific, medical, broadcast, navigation and safety radio applications.

"Designing RF power products is challenging when managing electromagnetic, thermal, and mechanical interactions effectively," said Dr. Vittorio Cuoco, Team Lead of Modeling and Characterization Group, Ampleon. "Ansys' solutions offer precise simulations that tackle these challenges head-on, minimizing design risks and improving reliability. The results are immeasurable — higher performance, energy savings, and greater efficiency."

This acceleration is further amplified by the flexibility of cloud-based simulation. By leveraging on-demand technologies, businesses can drive digital transformation with ease.

Drive Digital Change with Cloud-based Simulation

Additional highlights include maximizing computations with cloud technology, high-performance computing (HPC), and GPU-optimized infrastructure. These capabilities allow customers to explore more design possibilities in less time through faster, more scalable simulations. With expanded web-based and on-demand capabilities, engineers can seamlessly access tools, streamline workflows, and push the boundaries of product development beyond the desktop.

- [Ansys Icepak®](#) electronics cooling software gets a powerful boost with GPU acceleration, delivering faster iterations, more simulations, and deeper insights into the most challenging electrothermal applications
- Improved meshing capabilities in Ansys Discovery enhance simulation reliability and quality, accelerating time-to-solution and enabling faster, more confident setup with new GPU capabilities
- The [Ansys Cloud Burst Compute™](#) on-demand HPC capability is now available within six Ansys products, including Ansys Speos and Ansys Lumerical FDTD™, eliminating the need for setup, IT support, or HPC expertise

[Click here to learn more about Ansys 2025 R2.](#)

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.

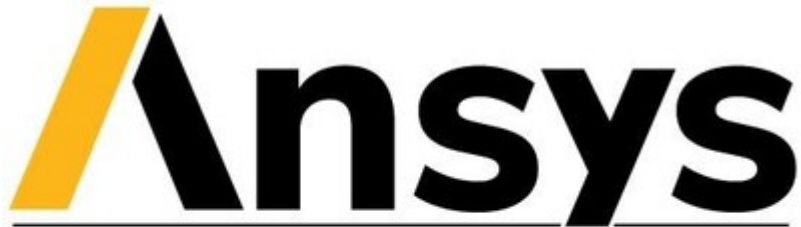
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