Synopsys Announces Expanding AI Capabilities for its Leading EDA Solutions

GenAI capabilities accelerate workflows from days to hours, hours to minutes

SUNNYVALE, Calif., Sept. 3, 2025 /PRNewswire/ -- Today Synopsys (Nasdaq: SNPS) announced expanding Synopsys.ai™ Copilot generative AI (GenAI) capabilities for its industry-leading semiconductor design solutions, enabling semiconductor engineering teams to accelerate development timelines, support significantly more complex designs, and increase engineering velocity amidst a workforce shortage.

Synopsys pioneered AI as a core capability of modern chip design, applying reinforcement learning and GenAI capabilities to help customers optimize silicon performance, improve efficiency, and accelerate time to market with its Synopsys.ai advanced suite of AI-powered solutions. The expanded Synopsys.ai Copilot assistive and creative capabilities have been in use with early access customers and are demonstrating significant design quality and engineer productivity gains, accelerating customer workflows from days to hours, and hours to minutes.

"AI is revolutionizing every layer of chip design and fueling a wave of ingenuity to deliver the next generation of advanced SoCs," said Sanjay Bali, Senior Vice President, Strategy and Product Management, Synopsys. "With the latest Synopsys.ai Copilot capabilities supporting assistive and creative applications across the chip design flow and delivering significant customer impact, we are empowering engineering teams to increase the quality of designs, free their time for additional high-value opportunities, and accelerate technology innovation."

Generative AI-powered Synopsys.ai Copilot capabilities include:

- **Assistive GenAI Capabilities:** The company's breakthrough knowledge assistant and new workflow assistant applications are being used by Synopsys' top customers, helping engineers be more productive and faster while using Synopsys tools. Of note, customers using knowledge assistant are reporting 30% faster ramp time for early-career engineers. Documentation searches and script generation that previously took hours now take minutes with Synopsys.ai Copilot. For example, the new workflow assistant application improves time to solutions for scripts by 2X on average; when utilized with Synopsys PrimeTime® it generates scripts 10X-20X faster than traditional methods. These significant efficiency gains are allowing newer engineers to work more independently and efficiently in Synopsys tools while maintaining high quality standards.

  In addition, Synopsys' knowledge assistant application is now available for all Synopsys Cloud users on both SaaS and Bring Your Own Cloud (BYOC) deployments. The Synopsys Cloud SaaS platform currently hosts more than 100 startups in production. With access to Synopsys' knowledge assistant application integrated seamlessly within their workflows, these startups can fuel engineering productivity and significantly accelerate time-to-tape out.

- **Creative GenAI Capabilities:** Synopsys' creative GenAI capabilities, including formal assertion generation and RTL code generation, are helping early access customers accelerate design and verification cycle times from days to hours, and hours to minutes. For example, a leading AI infrastructure solutions provider observed a 35% boost in engineering productivity for early-career and expert engineers within formal verification workflows, driven by automated formal testbench creation with a high degree of syntactic and functional accuracy. The accelerated workflow combined with improved results enabled the team to validate 10 design components in just 10 days.

New Ansys Engineering Copilot Deepens GenAI Simulation Capabilities
In addition, Synopsys is extending its AI capability leadership to simulation and analysis. Ansys, now part of Synopsys, recently introduced Ansys Engineering Copilot™, a multifunctional virtual assistant that helps shorten learning curves as well as increase engineer productivity and speed while using Synopsys simulation tools. The latest Ansys product release also featured updates to Ansys SimAI™, a physics-agnostic application that combines the predictive accuracy of Ansys simulation with the speed of AI. SimAI is now integrated with Ansys optiSLang®, accelerating dataset creation and AI training to unlock further design variation exploration and shortened product development cycles.

AgentEngineer™ Technology Under Development—First Prototype Demonstrated
Synopsys' generative AI capabilities are an essential foundation for the next frontier—AgentEngineer™ technology for chip design. These agents and multi-agent systems are specifically built and trained to make engineering workflows more efficient for human engineers by introducing progressive levels of autonomous execution—increasing productivity, leading to better results, and reducing computation requirements. Synopsys and Microsoft are continuing their close collaboration to usher in this era of agentic AI; Synopsys recently showcased the first prototype of the capability at DAC 2025, built on Microsoft

Discovery.

"Together, we are not just optimizing existing workflows—we are introducing a new paradigm to advance engineering innovation and productivity for next-generation chip designs," said Aseem Datar, Corporate Vice President, Product Innovation at Microsoft. "Our collaboration is redefining what is possible in the industry, leveraging Synopsys' deep domain expertise and the power and scale of Microsoft Discovery."

Synopsys' vision for AgentEngineer™ technology is for it to progress from performing step-level actions of single agents (L2) to complex actions with multi-agents (L3) to dynamic flow optimization with adaptive learning (L4), and finally to autonomous decision making (L5). To learn more about Synopsys' AI-powered design solutions, visit: https://www.synopsys.com/ai.html.

About Synopsys
Catalyzing the era of pervasive intelligence,Synopsys, Inc. (Nasdaq: SNPS) delivers trusted and comprehensive silicon to systems design solutions, from electronic design automation to silicon IP and system verification and validation. We partner closely with semiconductor and systems 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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