Synopsys HSPICE Simulator Delivers 6X Faster Throughput for Intrinsity's 45-nmTechnology Development

Circuit Simulation Performance and Golden Accuracy Critical to Embedded Core Development

MOUNTAIN VIEW, Calif., Sept. 10 /PRNewswire-FirstCall/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in software and IP for semiconductor design and manufacturing, today announced that Intrinsity Inc., a design technology company which develops embedded IP cores for high speed and low power applications, has adopted Synopsys'HSPICE® circuit simulator for design and verification of their 45-nanometer (nm) FastCore® embedded IP cores based on Fast14® technology. HSPICE delivered 6X throughput performance improvement over competing simulators.

"HSPICE has a long-standing reputation for providing golden accuracy for silicon device models and integrated circuit simulation. With HSPICE, Intrinsity continues to deliver groundbreaking high-speed, low-power embedded core designs for the semiconductor industry," said Michael Gehl, vice president of Product Development and Marketing for Intrinsity. "In addition, HSPICE simulated our 45-nanometer circuits more than six times faster than other commercial circuit simulators. We are confident that HSPICE will continue to meet our needs for fast, high-accuracy simulation for 45-nanometer and below designs."

The newest version of the HSPICE simulator delivers improvements in the symbolic DC operating point convergence algorithm, transient time-step control, netlist parsing, model performance and multi-threading. These enhancements accelerate overall simulation throughput on single-core and multi-core computers. HSPICE's fast transient (time-based) analysis technique, combined with its high-accuracy 40- and 45-nm device models, successfully improved the quality and efficiency of Intrinsity's design process. By running HSPICE for power and current simulations, Intrinsity was able to quickly optimize the size of the circuit's 45-nm gates and attain the optimal power consumption versus switching speed trade-off on their Fast14 and FastCore designs.

"HSPICE is widely accepted as the industry's most trusted circuit simulator with golden accuracy. Synopsys has made significant investments to support advanced process technology nodes," said Graham Etchells, director of marketing for the Analog/Mixed-Signal Group at Synopsys. "Recent advancements in HSPICE performance and device modeling have enabled Intrinsity to attain silicon-accurate power and current measurements at 45 nanometers while greatly reducing verification time for their leading-edge designs."

About Synopsys' HSPICE Simulator

The HSPICE simulator is the industry's "gold standard" for accurate circuit simulation and offers foundry-certified MOS device models with state- of-the-art simulation and analysis algorithms. With over 25 years of successful design tapeouts, the HSPICE simulator is one of the industry's fastest and most trusted circuit simulators. HSPICE is an integral component of Synopsys' Discovery AMS high-performance mixed-signal verification solution, which enables designers to achieve the highest throughput and accuracy for the largest mixed-signal systems-on-chip (SoC) designs.

About Synopsys

Synopsys, Inc. (NASDAQ: SNPS) is a world leader in electronic design automation (EDA) software for semiconductor design. The company delivers technology-leading semiconductor design and verification platforms and IC manufacturing software products to the global electronics market, enabling the development and production of complex systems-on-chips (SoCs). Synopsys also provides intellectual property and design services to simplify the design process and accelerate time-to-market for its customers. Synopsys is headquartered in Mountain View, California and has offices in more than 60 locations throughout North America, Europe, Japan and Asia. Visit Synopsys online at https://www.synopsys.com/.

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