

# Synopsys Extends Liberty Modeling Standard to Enable Variation-Aware Design

Variation-based Models Built on Proven Composite Current Source Technology to Deliver Improved Accuracy

PRNewswire-FirstCall  
MOUNTAIN VIEW, Calif.

Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, today announced new extensions to the Liberty™ library format, the de-facto open-source modeling standard for integrated circuit (IC) implementation and signoff. The new extensions facilitate variation-aware design, allowing engineers to control design margins, improve design robustness, and increase parametric yield. To help ensure the highest level of accuracy, these new Liberty extensions are built on the Composite Current Source (CCS) models, the industry's first current-based models to unify timing, signal-integrity and power.

Process variation models are the enablers to variation-aware design and emerging applications such as statistical static timing analysis. These applications account for uncertainties due to variability in device and interconnect at sub-65 nanometer (nm) technology nodes. In order to be of high value to designers, it is crucial for the variation-based cell models to be built on the most accurate representation of silicon behavior. CCS modeling technology has been proven to deliver excellent accuracy to within 2 percent of the HSPICE® tool at leading semiconductor companies and forms a solid foundation for these new Liberty modeling extensions.

"With these new extensions, Synopsys continues its long history of delivering open-source library modeling innovations to support the latest silicon technologies," said Ahsan Bootehsaz, vice president, Engineering, Synopsys Implementation Group. "This offering is a key component of our strategy to address the emerging design-for-manufacturing challenges at sub- 65-nanometers by enabling variation-aware design and furthering openness and interoperability in our industry."

## About Synopsys

Synopsys, Inc. is a world leader in 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 <http://www.synopsys.com/>.

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