Synopsys and Hitachi High-Technologies Deliver Enhanced OPC Modeling Speed, Accuracy and Predictability

Common DFM Interface Links Companies' Technologies, Enabling Reduced Cost of Ownership for Mutual Customers

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(NASDAQ:SNPS)

MOUNTAIN VIEW, Calif. and TOKYO, June 12 /PRNewswire-FirstCall/ -- Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, and Hitachi High-Technologies Corp., the world's leading developer and supplier of high-technology equipment for IC manufacturing, today announced that they have developed a seamless link between Hitachi High-Tech's DesignGauge design data measuring system and Synopsys' Proteus optical proximity correction (OPC) solution. Focused on incorporating manufacturing-aware metrology data into design, this common design for manufacturing (DFM) interface helps mutual customers to develop faster, more accurate and predictive OPC models for advanced 45 nanometer (nm) and beyond technologies. Moreover, Proteus customers can achieve higher OPC model predictability and reduced model-building cycle time.

As process geometries continue to shrink to 45-nm and beyond, the ability to deliver accurate OPC models that meet the stringent critical-dimension (CD) error budget across the process window plays an increasingly critical role in accelerating mask time-to-yield. Process window models must account for the wide range of process variation and complex two-dimensional (2D) structures. This becomes even more important with the use of multiple resolution enhancement techniques (RETs) for advanced semiconductor manufacturing.

The automated algorithmic link between DesignGauge, the application system for CD scanning electron microscopy (CD-SEM), and Proteus OPC for pre-processing OPC model building data allows Proteus customers to seamlessly obtain a large sampling of metrology data to account for process variations across the entire process window. This new functionality is available in the latest production release of Proteus.

"Working with a DFM world leader like Synopsys is invaluable in helping us to provide enhanced OPC modeling performance for our customers," said Aritoshi Sugimoto, general manager, Marketing & Planning Division, Semiconductor Equipment Business Group, Hitachi High-Technologies. "The accuracy and predictability of OPC models can be significantly improved by incorporating our unique DesignGauge CD-SEM data into the Proteus OPC tool."

"Proteus OPC has been in production for 10 years over seven consecutive technology nodes, delivering software performance improvement year over year. Combining leading-edge metrology information from Hitachi High-Tech with Proteus mask-synthesis data sharpens OPC model accuracy and predictability at 45 nanometers and beyond," said Anantha Sethuraman, vice president of marketing, Design for Manufacturing, Synopsys. "The result will be that customers are better able to achieve their model production and yield goals, ultimately reducing their overall cost of ownership."

About Hitachi High-Technologies

Hitachi High-Technologies Corporation, headquartered in Tokyo, Japan, is engaged in activities in a broad range of fields, including device manufacturing equipment, life science, information technology, electronic components, and advanced industrial materials. The company's consolidated sales for 2006 were more than $8 billion. For further information, visit www.hitachi-hitec.com/global/.

About Synopsys

Synopsys, Inc. (NASDAQ: SNPS) is a world leader in electronic design automation (EDA) software for semiconductor design. The company delivers technology-leading system and semiconductor design and verification platforms, IC manufacturing and yield optimization solutions, semiconductor intellectual property and design services to the global electronics market. These solutions enable the development and production of complex integrated circuits and electronic systems. Through its comprehensive solutions, Synopsys addresses the key challenges designers and manufacturers face today, including power management, accelerated time to yield and system-to-silicon verification. Synopsys is headquartered in Mountain View, California, and has more than 60 offices located throughout North America, Europe, Japan and Asia. Visit Synopsys online at http://www.synopsys.com/.

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