Synopsys Delivers Unified Solution for Digital and Custom SoC Designs

STMicroelectronics Reports 2X Productivity Advantage Over Existing ECO Flow with Integration of IC Compiler and Galaxy Custom Designer

MOUNTAIN VIEW, Calif., Sept. 26, 2011 /PRNewswire/ -- Synopsys, Inc. (Nasdaq: SNPS), a world leader in software and IP used in the design, verification and manufacture of electronic components and systems, today announced advances in its Galaxy™ Implementation Platform with the availability of its unified solution for mixed-signal designs. The new unified solution provides seamless integration between IC Compiler physical implementation and the Galaxy Custom Designer® solution, allowing design teams to easily move between digital and custom implementation flows while maintaining design data integrity. The unified solution accelerates the design development cycle by enabling quick and reliable custom edits to IC Compiler designs at any stage of development, including the time-critical tapeout phase.

"To manage complexity and reduce the development times of our mixed-signal designs, we need a unified methodology for digital and analog implementation," said Didier-Jerome Martin, physical implementation manager at STMicroelectronics' Microcontroller Division. "Using Synopsys' unified physical implementation solution on a 32-bit microcontroller design we reduced the cycle time by 25 percent from initial floorplanning to final tapeout, as compared to our previous flow. We also experienced a 2X productivity gain when performing late-stage layout ECOs, at a time in the project when schedules were compressed and time was at a premium."

Traditionally, digital place-and-route users have had to manually transfer their designs to a non-integrated custom editing tool to make analog-style changes. This method sacrifices productivity, introduces the risk of losing metadata in the process, and lacks the ability to readily assess the impact of custom edits on the overall design. The new unified IC Compiler and Custom Designer solution provides a powerful capability to perform custom editing of IC Compiler designs throughout the physical implementation flow, including floorplanning, placement, clock tree synthesis, routing and chip finishing. Virtually no setup is required, and the lossless, multi-roundtrip capability gives users a high degree of flexibility to make custom edits to the design while ensuring that all changes are reflected back into IC Compiler.

IC Compiler customers can now take advantage of Custom Designer's advanced productivity features such as SmartDRD technology for design-rule-driven layout, interactive point-to-point auto-routing, and automation technologies such as auto-bus and auto-via generation. All this comes with push-button access to the same IC Validator physical verification and StarRC™ parasitic extraction tools used with IC Compiler, providing designers with a unified physical implementation solution.

"Designing today's digital and mixed-signal SoCs involves multiple iterations between digital and custom implementation," said Bijan Kiani, vice president of product marketing at Synopsys. "The new innovations in the Galaxy Platform provide the capabilities needed by design teams to manage the increased complexity and aggressive development schedules of complex mixed-signal designs."

Synopsys will premiere a webinar entitled "Use IC Compiler and Custom Designer to Shave Weeks Off Your SoC Development Cycle" on October 19, 2011 at 10:00 a.m. (PT) that will showcase the seamless integration between IC Compiler and Custom Designer. Visit http://www.customdesigner.com to view a video demonstration and learn more about the IC Compiler and Custom Designer solution.

About Synopsys

Synopsys, Inc. (Nasdaq: SNPS) is a world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design, verification and manufacturing. Synopsys' comprehensive, integrated portfolio of implementation, verification, IP, manufacturing and field-programmable gate array (FPGA) solutions helps address the key challenges designers and manufacturers face today, such as power and yield management, system-to-silicon verification and time-to-results. These technology-leading solutions help give Synopsys customers a competitive edge in bringing the best products to market quickly while reducing costs and schedule risk. Synopsys is headquartered in Mountain View, California, and has approximately 70 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at http://www.synopsys.com/**.**

Editorial Contacts:

Sheryl Gulizia
Synopsys, Inc.
650-584-8635
sgulizia@synopsys.com

Lisa Gillette-Martin
MCA, Inc.
650-968-8900 ext. 115
lgmartin@mcapr.com

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