Synopsys and IBM Announce Availability of Fully Synthesizable PowerPC Cores and SystemC Models

Synopsys to Deliver Complete System to Implementation Solution for Power Architecture Designs

Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, and IBM today announced the availability of fully synthesizable versions of IBM's PowerPC® 405 and 440 processors as part of the DesignWare® Star IP (intellectual property) program. The IBM PowerPC processors will be distributed as fully soft register transfer level (RTL) cores which can be easily implemented in any foundry process and configured to product design requirements including low power, high performance, or small silicon area. SystemC™ models of the PowerPC cores and associated peripherals will be distributed in Synopsys' System Studio architecture design and analysis environment. The combination of SystemC models, the synthesizable PowerPC cores and design services can give designers a complete PowerPC solution spanning all facets of SoC design from system-level design to implementation.

Developed in close collaboration between IBM and the Synopsys Professional Services and DesignWare IP teams, the foundry-independent processor models support a broad range of design tools in the Synopsys Galaxy™ Design and Discovery™ Verification platforms. These design tools can help designers to address the full range of design issues including power reduction, signal integrity, design for manufacturing (DFM) and verification.

IBM's SystemC models of the PowerPC processor cores and IBM CoreConnect™ on-chip buses and peripherals will also be distributed by Synopsys for use with the System Studio tool. These transaction-level models can help product architects to efficiently explore high-level architectural trade-offs before committing to a specific implementation, and to facilitate pre-silicon hardware/software integration.

"There is tremendous demand for process portable versions of Power Architecture™-based microprocessor cores for many applications within communications, consumer electronics and automotive segments," said Ron Martino, director of PowerPC Products at IBM. "This collaboration with Synopsys gives designers the ability to quickly implement customized Power Architecture based applications in world-leading semiconductor technologies. This announcement is an extension of our successful PowerPC and DesignWare Star IP relationship with Synopsys."

"Distribution of the synthesizable PowerPC cores through DesignWare Library and the SystemC models in the System Studio tool is a significant and natural extension of our multi-year collaboration with IBM on Power Architecture," said John Chilton, senior vice president and general manager of Synopsys' Solutions Group. "In addition to the pervasive DesignWare distribution channel and extensive customer support, Synopsys provides a reference design flow from system-level design through implementation that gives designers a proven, low-risk path to silicon with the flexibility to implement designs in their choice of process technologies."

Synopsys' distribution of the PowerPC models supports the goals of Power.org by providing designers around the world with access to the Power Architecture and with a means to implement it in their preferred process technology. Power.org is an open standards organization promoting the Power Architecture and its supporting technologies. Both IBM and Synopsys are founding members.

Synopsys and IBM will present additional details about the synthesizable PowerPC models at a "Power Lunch" event at the Design Automation Conference in Anaheim on June 14, 2005. Registration is available on-line through Synopsys at https://www.synopsys.com/ .

Availability

Design Views, including the simulation and timing models, a verification environment, and full documentation for the PowerPC 405 and 440, are currently available at no additional charge to DesignWare Library customers. For an additional fee, DesignWare Library users may license from IBM the Implementation Views of the core, including the fully synthesizable RTL; Synopsys will deliver the Implementation View(s) and will provide technical support. The Design Views can be downloaded from the Synopsys web site at https://www.synopsys.com/dwrequest .

SystemC models of the PowerPC 405 and 440 and selected CoreConnect peripherals are planned to be released with the System Studio tool in Q3 calendar 2005.

About DesignWare

Synopsys DesignWare® IP enables designers to quickly create and verify complex SoCs, ASICs and FPGAs. DesignWare gives designers a faster, more predictable and lower-risk path to chip success. The DesignWare Library Portfolio includes

foundry libraries, verification IP, AMBA™ bus IP and peripherals, memories, building block IP and microcontrollers. All are available under one license with no additional costs, per use fees, or royalties. For more information on DesignWare IP, visit: www.designware.com or call 1-877-4BEST-IP

About IBM

IBM develops, manufactures and markets state-of-the-art semiconductor and interconnect technologies, products and services including industry-leading Power Architecture microprocessors. IBM semiconductors are a major contributor to the company's position as the world's largest information technology company. Its chip products and solutions power IBM eServer and TotalStorage systems as well as many of the world's best-known electronics brands. IBM semiconductor innovations include dual-core microprocessors, copper wiring, silicon-on-insulator and silicon germanium transistors, strained silicon, and eFUSE, a technology that enables computer chips to automatically respond to changing conditions. More information is available at: http://www.ibm.com/chips .

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 https://www.synopsys.com/ .

Forward Looking Statements

This press release contains forward-looking statements within the meaning of the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, including statements regarding the expected benefits and date of availability of SystemC models of the PowerPC 405 and 440 cores and selected CoreConnect peripherals. These statements are based on Synopsys' current expectations and beliefs. Actual results could differ materially from these statements as a result of unforeseen difficulties in completing the collaboration with IBM development, uncertainties attendant to any new product release and the other factors contained in Synopsys' Quarterly Report on Form 10-Q for the fiscal quarter ended April 30, 2005.

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SOURCE: Synopsys, Inc.

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