Synopsys Defines Next Era of Rapid Prototyping

Expanded Hardware-assisted Verification Offering Addresses Economics of Embedded Software Development and System Validation

MOUNTAIN VIEW, Calif., Feb. 9 /PRNewswire-FirstCall/ -- Synopsys, Inc. , a world leader in software and IP for semiconductor design and manufacturing, today introduced its expanded Confirma™ rapid prototyping platform. The addition of the recently acquired CHIPit® products, tools and technologies simplifies the implementation and deployment of rapid prototypes, allowing users to begin hardware-assisted system validation and embedded software development sooner. Complementing the HAPS high-performance prototyping hardware, the expanded Confirma platform now also offers a software-configurable architecture and transaction-based co-verification capability. With the combination of a proven prototyping methodology, IP, services, hardware and software, the Confirma platform is a comprehensive solution for a wide variety of prototyping applications. Synopsys now delivers the most comprehensive Software-to-Silicon Verification Solution - including rapid prototyping, virtual platforms, functional verification and analog/mixed signal circuit simulation - addressing the key challenges in the system-on-chip (SoC) verification process.

"Growing SoC complexities, increasing amounts of embedded software, and the high cost of emulation have forced new approaches to system design and validation," said Gary Meyers, vice president and general manager of the Synplicity Business Group at Synopsys. "Build-your-own prototyping boards, although widely used for many years, have become increasingly difficult for customers to design, manufacture and implement. Our Confirma platform, the technology-leading rapid prototyping system, represents the next era of comprehensive hardware-assisted verification that enables development teams to simultaneously validate and more economically deliver their complex chips and software."

"How does rapid prototyping help us? The key benefit is that it allows us - almost always - to have our system up and running within a day or two of receiving silicon," said Rick Bahr, vice president of Engineering at Atheros.

The Economics of Hardware-assisted Verification

The growing complexity of chip design and software content is increasing the cost of embedded software development and system validation. Traditional approaches such as "big-box" emulation systems are too expensive and slow for wide deployment to embedded software developers and verification teams. Custom-built FPGA-based prototypes can address these issues but are difficult, time-consuming and expensive to implement and debug. The Confirma rapid prototyping platform helps solve the problems associated with these traditional approaches and brings all the critical components together into a comprehensive and affordable solution that enables more design teams to take advantage of the benefits of hardware-assisted verification.

"Synopsys' hardware-assisted verification strategy, which is focused on leveraging the growing capacity and performance of FPGAs coupled with leading implementation tools, positions them as a leading provider of hardware-assisted verification solutions," said Gary Smith, founder and chief analyst at Gary Smith EDA. "Embedded software development is a massive challenge for SoC designers, and the expanded Confirma platform is an important part of the solution."

The Expanded Confirma Platform

The expanded Confirma platform is a complete suite of products for rapid prototyping including FPGA-based prototyping

systems and boards, interface and memory boards, and implementation and debug software. The Confirma platform provides all of the elements needed to quickly implement a rapid prototype:

Hardware platforms:

- CHIPit family of rapid prototyping systems featuring a programmable interconnect architecture for greater automation and providing emulation-like capabilities optimized for transaction-based verification
- HAPS™ family of rapid prototyping boards providing high performance for system validation and embedded software development
- An extensive collection of high-speed interface and expansion boards enabling prototypes to be easily customized to cover a wide range of applications

Software tools:

- CHIPit Manager Pro prototype configuration and project management software
- SCE-MI (Standard Co-Emulation Modeling Interface) compliant transaction-based co-verification interface
- Certify® multi-FPGA implementation and partitioning software
- Identify® Pro debug software with TotalRecall™ visibility enhancement technology
- Synplify® Premier, the technology-leading FPGA physical synthesis tool

Complementing the product offerings are a wide range of service, training and support options, ranging from one-week training classes to full turn-key services as well as Synopsys' worldwide support for geographically distributed hardware and software design teams.

Part of a Comprehensive Software-to-Silicon Verification Solution

The Confirma rapid prototyping platform is part of Synopsys' Software-to-Silicon Verification Solution that offers the industry's most comprehensive suite of proven embedded software development, system validation, functional verification and circuit simulation software, hardware, intellectual property (IP), methodologies and services for complex system-on-chip (SoC) development. New solution-level integration includes co-simulation and debugging between Synopsys' Confirma platform and VCS® high-performance simulator, and support for synthesizable DesignWare® IP in Confirma rapid prototypes. The Confirma products also integrate with Innovator-based virtual platforms to enable a hybrid virtual/physical prototyping environment for embedded software development and verification.

Rapid Prototyping Seminars and Workshops

Synopsys is planning a series of educational half-day management seminars and full-day hands-on technical workshops focused on rapid prototyping starting in February 2009. For more information and to register please visit https://www.synopsys.com/Company/Pages/Events.aspx

About Synopsys

Synopsys, Inc. is the world leader in electronic design automation (EDA), supplying the global electronics market with the software, intellectual property (IP) and services used in semiconductor design 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, software-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 more than 60 offices located throughout North America, Europe, Japan, Asia and India. Visit Synopsys online at https://www.synopsys.com.

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