Atmel Adopts Synopsys' VCS Native Testbench and SystemVerilog Assertions

VCS Native Testbench Technology Helps Atmel Find Critical Bugs in Less Time

PRNewswire-FirstCall
MOUNTAIN VIEW, Calif.

Synopsys, Inc. (NASDAQ: SNPS), a world leader in semiconductor design software, today announced that Atmel Corporation (NASDAQ: ATML), a global leader in the development and fabrication of advanced semiconductor solutions, has adopted the latest release of Synopsys' VCS® comprehensive RTL verification solution for verification of its leading devices. Atmel development teams are taking full advantage of the built-in verification features of the VCS solution, including Native Testbench (NTB) technology, SystemVerilog assertions, and built-in coverage. By natively integrating a comprehensive set of bug-finding technologies, the VCS solution offers up to 5x faster verification performance compared with using stand-alone tools. The VCS solution is a key component of the Synopsys Discovery™ Verification Platform.

"VCS' NTB has been easy to adopt and has proven itself by providing increased productivity in validating our designs," said Eric Costello, design methodology manager at Atmel. "The availability of native verification technologies in a single tool allows us to easily deploy advanced verification techniques. In one recent project, we found benefit by relying on NTB's constraint solver to create complex test sequences versus the traditional approach of writing directed tests. Using the tool to exercise the part saved us time and resources, found bugs and let us run more cycles."

Atmel also takes advantage of the VCS solution's built-in support for SystemVerilog assertions, functional coverage and code coverage as part of a coverage-driven verification methodology. SystemVerilog assertions are written by designers to capture elements of the verification plan, enabling progress to be tracked over time and increasing confidence in verification schedules. The combination of the VCS solution's native assertion, testbench and comprehensive code coverage engines provides an effective mechanism for tracking verification progress and effectiveness.

"We make extensive use of the VCS solution's built-in coverage features to help monitor progress to our verification plan," continued Eric Costello. "SystemVerilog assertions in particular have quickly become an important part of our verification and debug strategies, and are being eagerly adopted by our design teams."

"The wealth of bug-finding technologies in VCS makes it a truly comprehensive RTL verification solution," said Farhad Hayat, vice president of Marketing, Verification Group, Synopsys, Inc. "With full-featured testbench capabilities, built-in assertions and a wide range of coverage metrics, customers such as Atmel are achieving much better verification results with less effort in less time."

Synopsys Discovery Verification Platform

The Discovery Verification Platform is a unified environment that provides high performance and efficiency of interaction among all platform components, including mixed-HDL simulation, mixed-signal, system-level verification, assertions, DesignWare® verification intellectual property, code coverage, functional coverage, testbenches and formal analysis. Combined with support for industry-standard hardware design and verification languages, including Verilog, VHDL, SystemVerilog, SystemC™ and OpenVera® and Synopsys' proven Reference Verification Methodology, the Discovery Verification Platform helps designers achieve higher levels of verification productivity by contributing to first-time silicon success within required project cycles.

About Synopsys

Synopsys, Inc. is a world leader in electronic design automation (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/.

About Atmel

Atmel is a worldwide leader in the design and manufacture of microcontrollers, advanced logic, mixed-signal, nonvolatile memory and radio frequency (RF) components. Leveraging one of the industry's broadest intellectual property (IP) technology portfolios, Atmel is able to provide the electronics industry with complete

system solutions. Focused on consumer, industrial, security, communications, computing and automotive markets, Atmel ICs can be found Everywhere You Are(SM).

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SOURCE: Synopsys, Inc.

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