



BLUESPEC AND NOVAS CREATE THE FIRST COMPREHENSIVE DEBUG ENVIRONMENT FOR HIGH-LEVEL SYNTHESIS

-- Blueview and Verdi Boost Engineering Productivity Through Easy Debug of High-Level Source Code --

Waltham, Mass. and San Jose, Calif. – November 15, 2004 – Bluespec Inc., www.bluespec.com, developer of the industry's first SystemVerilog-based Electronic Design Automation (EDA) behavioral synthesis toolset, and Novas Software, Inc., www.novas.com, the leader in debug systems for complex chip designs, jointly announced today the creation of the first debugging environment for behavioral synthesis that allows hardware design engineers to easily debug high-level, untimed, behavioral source code.

Resulting from collaborative efforts enabled by the Novas Harmony partner program, the debugging environment allows interactive cross-probing and communication between Bluespec's Blueview™ design visualization tool and the Novas Verdi™ Automated Debug System. This integrated solution reduces time spent tracing causes during debug, and is a major improvement over debug flows associated with previous behavioral synthesis approaches.

For engineering teams adopting behavioral synthesis, access to verification debug environments that leverage current tools and methodologies and that quickly convey information across different design abstraction levels is essential. Blueview augments the award-winning Verdi debug system with a graphical user interface (GUI) to Bluespec's behavioral synthesis design database and a powerful cross-referencing engine. Using the products together, engineers can simultaneously view both the high-level design source code and the corresponding Verilog RTL generated from Bluespec's Compiler, and then rapidly navigate between design and debug views. These viewing and navigation capabilities enable visualization and debugging of high-level design interfaces, state elements and Bluespec design assertions.

“Designing at higher levels of abstraction addresses the growing cost of design and verification,” said George Harper, vice president of marketing at Bluespec. “Our Novas partnership enables this by ensuring that designers can effectively debug high-level untimed behavioral descriptions using their favorite tools and environments.”

Added David Kelf, vice president of marketing at Novas, “The trend toward larger, more complex designs continues to drive EDA innovation, and high-level synthesis represents a promising approach to effectively tackle several significant design challenges. By partnering with Bluespec, we have extended our debug system to let mutual customers effectively comprehend and analyze abstract source code targeted at this methodology.”

Behavioral Synthesis Debug Environment

The integrated Novas-Bluespec solution allows engineers to debug their designs by viewing high-level source code, the generated Verilog RTL, and simulation waveforms in a familiar environment, while also running their preferred Verilog simulation and testbench tools. This approach provides automated links to the original source code, removing the manual process of cross-referencing code required by previous behavioral synthesis solutions.

Using the Bluespec Compiler, designers also have the choice of expressing their design at a transaction level and progressively refining blocks to a more detailed implementation, all the while staying at an untimed behavioral expression. The integration of Blueview and Verdi provides the only debug environment that seamlessly supports these different levels of abstraction, allowing designers to rapidly examine their logic verification results and obtain guidance to safely make the micro-architecture changes required for timing closure.

"Novas' and Bluespec's integrated debug environment will fit seamlessly with our current verification flow, and allow our designers to easily debug this high-level behavioral design at the source," said Kaushik Patel, vice president of hardware engineering, Aarohi Communications, Inc.

About Novas & Novas Harmony Program

Novas Software, Inc. is the leading provider of robust, tool-independent design debug systems to companies designing complex ICs and SoCs. Novas' products dramatically reduce the time it takes for engineers to locate, isolate and solve the root causes of functional design and verification problems. Novas is ranked first in customer satisfaction for three consecutive years in a comprehensive EDA study published by CMP. There are more than 12,000 Novas systems installed worldwide by over 400 companies and 35 EDA companies utilizing Novas technology in their products today. Novas is headquartered in San Jose, Calif. with offices in Europe, Japan and Asia-Pacific. For more information, visit www.novas.com or email info@novas.com.

Novas established the Harmony program in 1999 to lower the cost of EDA tool interoperability. The Harmony program provides developers of verification and other tools with software licenses, engineering support for integration efforts, and ongoing support for mutual customers. Novas' open application programming interfaces (APIs) ensure that the widest range of chip design and verification solutions can take advantage of its industry-leading debug capabilities.

About Bluespec

Bluespec Inc. manufactures an industry standards-based Electronic Design Automation (EDA) toolset that significantly raises the level of abstraction for hardware design while retaining the ability to automatically synthesize high quality RTL, without compromising speed, power or area. The toolset allows ASIC and FPGA designers to significantly reduce design time, bugs and re-spins that contribute to product delays and escalating costs. More information can be found on www.bluespec.com or by calling 781-250-2200.

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