



Ford, GM and others join Nexus 5001™ Forum

Consortium driving real-time development tool interface to dramatically reduce automotive debug development time

DETROIT - Oct. 19, 2004 - Convergence 2004 - Automotive leaders Ford and GM and four other companies have joined the growing industry effort to cut in half the amount of time spent debugging automotive embedded systems. To accomplish this improvement, the 21 member companies of the Nexus 5001™ Forum are driving adoption of the Nexus Standard.

The Nexus Standard (IEEE-ISTO Nexus 5001) is an embedded processor development tool interface that helps design engineers rapidly identify software- and hardware-level problems in real time. By using a standard debug protocol available from multiple chip makers, companies can reduce time and expense when migrating between architectures. Adoption of the standard also helps reduce risk and improve overall quality and time to market.

In addition to GM and Ford, other new Nexus 5001 Forum members include Motorola, Inc.'s automotive electronics business; Green Hills Software, Inc.; Metrowerks Corporation and Windriver Systems, Inc.

"The ability to have real-time visibility and control of a complex embedded processor in a very difficult environment, like a car engine compartment, is what the Forum has been striving for since its beginning," said Ron Stence, chairman of the Nexus 5001 Forum and senior strategic marketing and systems engineer for Freescale Semiconductor. "The addition of these new members is a vote of confidence for the Nexus Forum and Standard."

Benefits of the Nexus 5001 Standard

Development, verification and tuning of embedded control applications represent a significant time and resource investment for automotive and controller development companies. Establishing the Nexus Standard enables engineers and programmers to find and fix problems with their systems using emulators, debuggers, logic analyzers,

hardware-in-the-loop and workstations to control embedded processors in real time. This significantly reduces debug, calibration and rapid prototyping development time and costs.

Standardization also ensures that microprocessor systems can re-use diagnostic equipment across multiple architectures and design cycles. For example, the flexibility of a standard Nexus port allows an engineer to use the same toolset on each Nexus-enabled processor. Another major advantage is the multi-client interface capabilities of Nexus to conduct real-time multi-processor debug over a single Nexus interface.

"Standards like Nexus bring order by providing the necessary framework required for 'plug and debug' tool solutions," said Robert LaGuerra, automotive analyst at market research firm ABI Research. "This creates a situation in which all parties win. Single tool solutions can debug and calibrate systems employing single through multiple types of microprocessors. And, manufacturers can bring product to market faster while providing tools vendors the opportunity to do what they do best -- produce tools with the best features that span multiple platforms. The automotive industry needs this type of standardization, which may indeed serve as a 'lighthouse' standard to other industries."

Technology day to showcase the "Best of Nexus"

Members of the Nexus 5001 Forum will roll out a showcase of Nexus technology at the Real-Time Automotive Seminar, Oct. 21-22 in Dearborn, Mich. The event will combine technical presentations, product showcases and tutorials to give attendees a first-hand look at how Nexus can address challenging embedded processor issues.

The technology day will begin with presentation of a paper from William Allen of Delphi Systems and member of the Nexus 5001 Forum's steering committee. Dr. Peter Schulmeyer, director of strategy and marketing for Freescale Semiconductor's Transportation & Standard Products Group will speak on "The Evolving Standards in Automotive System Design." The day will conclude with a four-hour workshop and product demonstration. For more information on the Nexus Technology Day, go to: <http://www.nexus5001.org>

About the Nexus 5001 Forum

The Nexus 5001 Forum membership spans the semiconductor, development tools and automotive electronics industries. Although the Forum initially focused on the stringent requirements of microprocessor debug tools for automotive powertrain applications, its overall goal is to enable the continued development of state-of-the-art, easy-to-use, high-performance microcontrollers.

Members of the Forum include Alphamosaic, Ashling Microsystems, Delphi Corp., dSPACE GmbH, ETAS GmbH, Ford Motor Company, Freescale Semiconductor, General Motors Corp., Green Hills Software, Inc.; Hitex, IAR Systems, Infineon Technologies, iSystem GmbH, Lauterbach, Metrowerks Corporation, Motorola, Inc.;

National Semiconductor Corporation, Nohau Corporation, STMicroelectronics, Visteon Corporation and Windriver Systems, Inc.

The Nexus 5001 Forum is a program of the IEEE Industry Standards and Technology Organization (IEEE-ISTO), which provides administrative and management support to industry consortia and other standards development forums. To download the IEEE-ISTO 5001™-1999 specification via the Nexus 5001 Forum Web site, go to:
<http://www.nexus5001.org>.

Membership in the Nexus 5001 Forum is open to any interested party and is not limited to particular vendors or particular interests. Those interested in participating in the Nexus specifications are encouraged to visit the Nexus Forum online at:
<http://www.nexus5001.org>.

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