



*System-Driven Verification Automation*

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## **JEDA BRINGS KEY VERIFICATION TECHNOLOGIES TO SYSTEMC**

*NSCv™ adds Native Functional Data Coverage, Flexible Dynamic Threading, and Memory Management Capabilities to SystemC*

**Los Altos**, Calif. February 19, 2006—JEDA Technologies today announced NSCv, a new addition to its SystemC Verification automation solutions. NSCv adds functional data coverage, dynamic threading, and a brand new memory management system to SystemC. NSCv brings SystemC users the equivalent functionality of SystemVerilog coverage and dynamic threading control.

JEDA is focused on adding verification automation capabilities to SystemC. NSCv builds on the foundation of the open-source SystemC Verification library (SCV). Though SCV has been available for a couple of years, it is not commercially supported and has shortcomings and flaws and is incomplete as a verification solution. NSCv addresses the shortcomings and flaws, providing SystemC users much requested functionalities.

### **Functional Data Coverage**

NSCv's functional data coverage provides engineers with the ability to collect and analyze user-specified metrics to gain better insight of their models and testbenches. For the architect, this capability provides insight about the internals of the model and points out functional weaknesses that cannot be covered with C++ code coverage tools. For the testbench creator, NSCv's data coverage provides a metric for measuring testbench quality.

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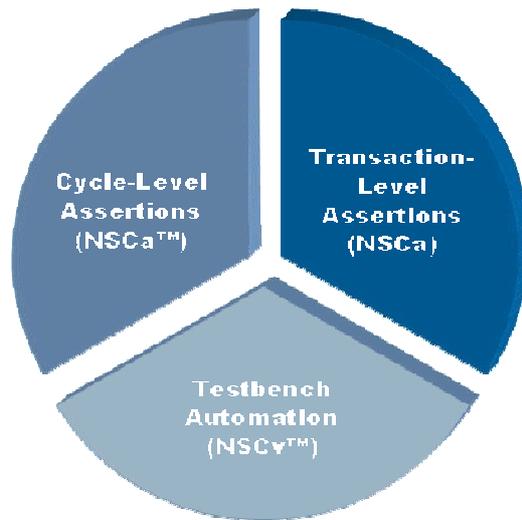
The capabilities for the NSCv functional Data Coverage solution is summarized as follows:

<b>NSCv Coverage Capabilities</b>	
<b>Range Coverage</b>	Measures if a range of values is covered for a group of signals.
<b>Cross Coverage</b>	Measures the cross coverage of two vectors.
<b>Transition Coverage</b>	Primarily used for state machines. Measures if legal and illegal paths are covered.
<b>Group Coverage</b>	Measures the coverage for a group of coverage points.

### **Flexible Dynamic Threading and Memory Management**

SoC-based systems are highly concurrent, involving both hardware and software interaction. SystemC currently provides rudimentary threading control. Using the current SystemC constructs to describe highly concurrent SoC models, although possible, requires significantly more user code to manage threads and memory. NSCv introduces an advanced dynamic-threading capability with a new shared pointer implementation that simplifies the ability to describe concurrency. Along with this ability, NSCv also adds a new memory management (garbage collection) system to effectively support this new inline dynamic threading

“Our focus is to fill the verification void that exists in SystemC today. We are providing solutions that scale from the transaction level to the cycle level. With NSCv, we are further expanding the SystemC verification automation capabilities. With our native SystemC solutions, users can enjoy the benefits of using SystemC as a single language for architectural modeling, synthesis and verification. NSCv is the third component to our SystemC verification automation solution. The first two components: cycle/signal level assertions and transaction-level assertions are included in our NSCa™ product released in 2006”, said Eugene Zhang, President and CEO of JEDA Technologies.



JEDA Technologies SystemC Verification Automation Solution

**About JEDA Technologies**

JEDA Technologies, founded in 2002, is the “System-Driven Verification Automation Company” focused on providing verification automation tools for SystemC based designs. The founding team has a broad verification tool use and development background. NSCa and NSCv are the third verification automation solution developed by the team including the invention of Vera. They were also the founding verification team at Juniper Networks. The company is based in Los Altos, California with a development center in Beijing China. For more information, please visit [www.jedatechnologies.com](http://www.jedatechnologies.com).

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