



OSCI / SystemC directions

Dec. 2005

Presented by OSCI Board representative

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OSCI goals for FY06 (July '05 to June 30 '06)

- OSCI has a goal to foster a healthy ecosystem of commercial IP, commercial tools, commercial silicon and commercial systems
- OSCI intends to
 - ◆ continue provide bugfixes for open-source proof-of-concept simulator, for LRM-incompatibilities
 - ◆ Transfer TLM specification to IEEE
 - ◆ Continue provide layered open source libraries (eg. TLM, SCV)
 - ◆ Produce a synthesisable subset specification standard
- OSCI has a continued role to develop consensus within the SystemC community, and work with the IEEE with respect to the SystemC standard
- OSCI has a goal to produce a proof-of-concept implementation for those standards where it is appropriate

SystemC is IEEE 1666

- Approved by IEEE on Dec. 6, 2005
- See IEEE and OSCI press releases Dec. 12, 2005
- IEEE LRM available in Q2'06 from IEEE
- Until then, for SystemC language reference SystemC users can rely on available OSCI LRM (www.systemc.org), and read notes on some temporary incompatibilities in OSCI open source proof-of-concept simulator documentation

Key objectives of OSCI

July 05 to June 06 (OSCI FY '06)

- **To consolidate usage of IEEE 1666 SystemC**
 - incl. achieve migration of existing users from SystemC 2.0.1
 - Communicate/demonstrate - SystemC 2.1 is there (IEEE, TLM)

 - Stabilise usage of core language version (IEEE 1666)
 - ♦ Prove concept by providing OSCI 2.1 open source simulator & LRM-incompatibilities bugfixes
 - ♦ Promote commercialisation of 2.1 compatible tools

 - Align existing OSCI libraries (SCV)
 - ♦ to LRM standard & OSCI 2.1 simulator

 - To inventory existing examples from OSCI website & identify needs for more

Key FY06 objectives (cnt'd)

- **To continue SystemC adoption and further grow SystemC community**
 - OSCI has a goal to promote interoperability of SystemC models
 - ♦ across use models, across tools
 - Reduce barriers to SystemC models distribution (compilers roadmap,..)
 - guide protocol & IP owners to provide TLM view of their protocol
 - ♦ OSCI to guide users for interoperability (source and binary)
 - OSCI has a goal to facilitate interoperability of SystemC and non-SystemC models
 - ♦ eg. C-based ISSes, VHDL/Verilog RTL
 - improve information on website

Technical agenda summary FY06

- Simulator 2.1 : LRM-incompatibilities bugfixes, examples
- Guide owners of protocol & IP to develop OSCI TLM views
- OSCI guidelines on how to create models that can be reused (or most code reused) for various usages (verification, SW,...) and across companies
- Facilitate System IP delivery (incl. compiled models)
- SCV for SystemC 2.1
- Website more frequent updates of technical contents
- Investigate / incubate SystemC new usages and techniques

OSCI / SystemC directions - Headlines

- **IEEE 1666**
 - SystemC core language is IEEE 1666-2005 standard announced Dec. 12 2005 - IEEE and OSCI press releases
 - then TLM, numbering will be possibly 1666.1
- **Interoperability of IPs & tools from various sources**
 - Including TLM
- **Further grow users community**
- **Extend the usage of SystemC into new areas**
 - Incubate new usages and extensions – eg. SystemC-AMS

The logo for SYSTEM C features the text "SYSTEM C" in a white, sans-serif font, centered within a dark blue, semi-circular shape. A white arc is positioned above the text. The logo is set against a background of horizontal lines that transition from yellow on the left to blue on the right.

SYSTEM C™

THANK YOU