



SystemC Community Update

11th NASCUG Meeting
July 27, 2009
San Francisco, CA

Mike Meredith
OSCI President

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Outline

- Update on the OSCI organization, events and activities
 - TLM-2.0 in Action Video Tutorial 
- Technical Working Group updates
 - Transaction-Level Modeling (TLM)
 - Analog/Mixed-Signal (AMS)
 - Language
 - Synthesis
 - Configuration, Control and Inspection (CCI) 

OSCI Membership

**Corporate
Members**

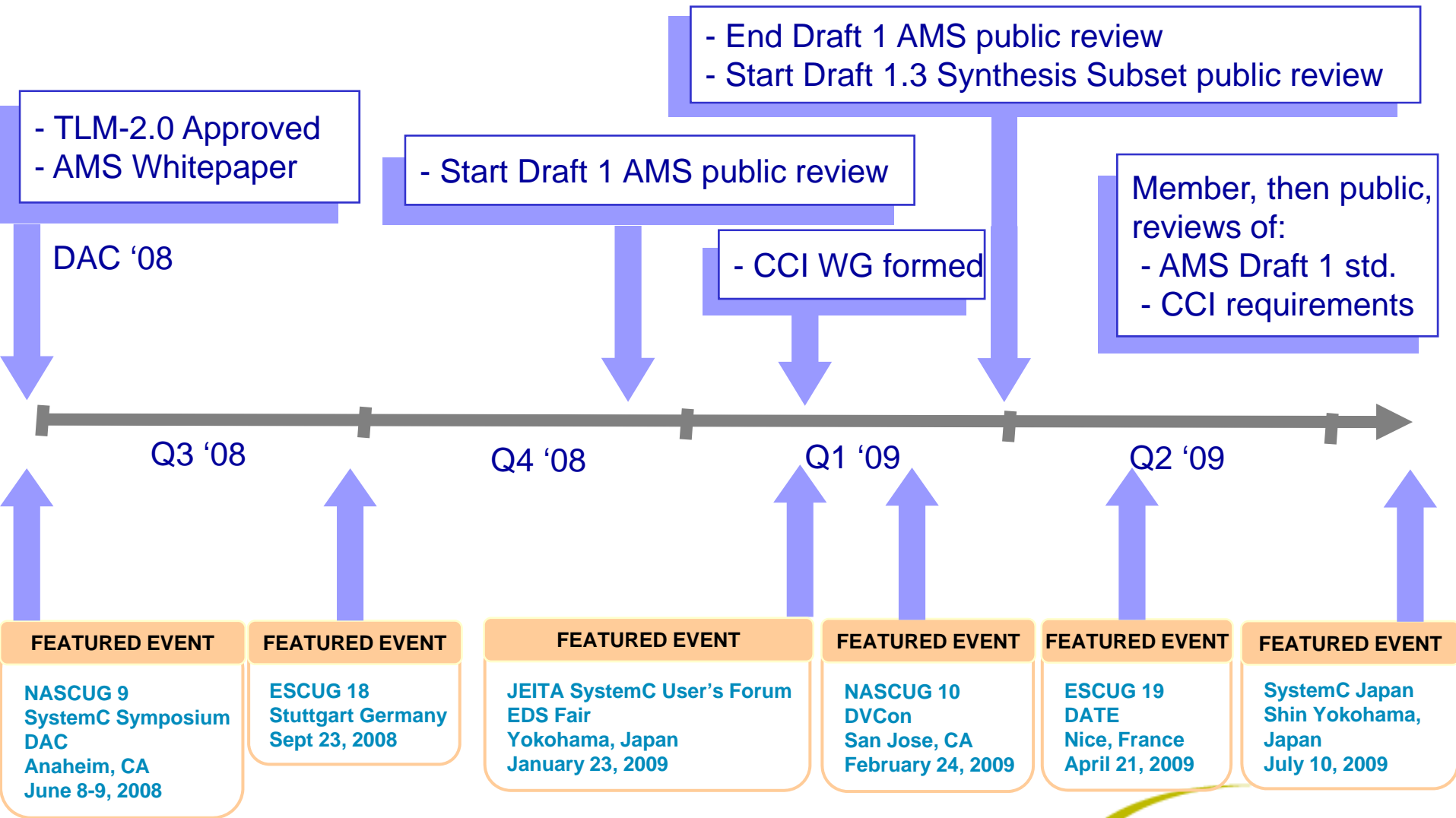


**Associate
Members**

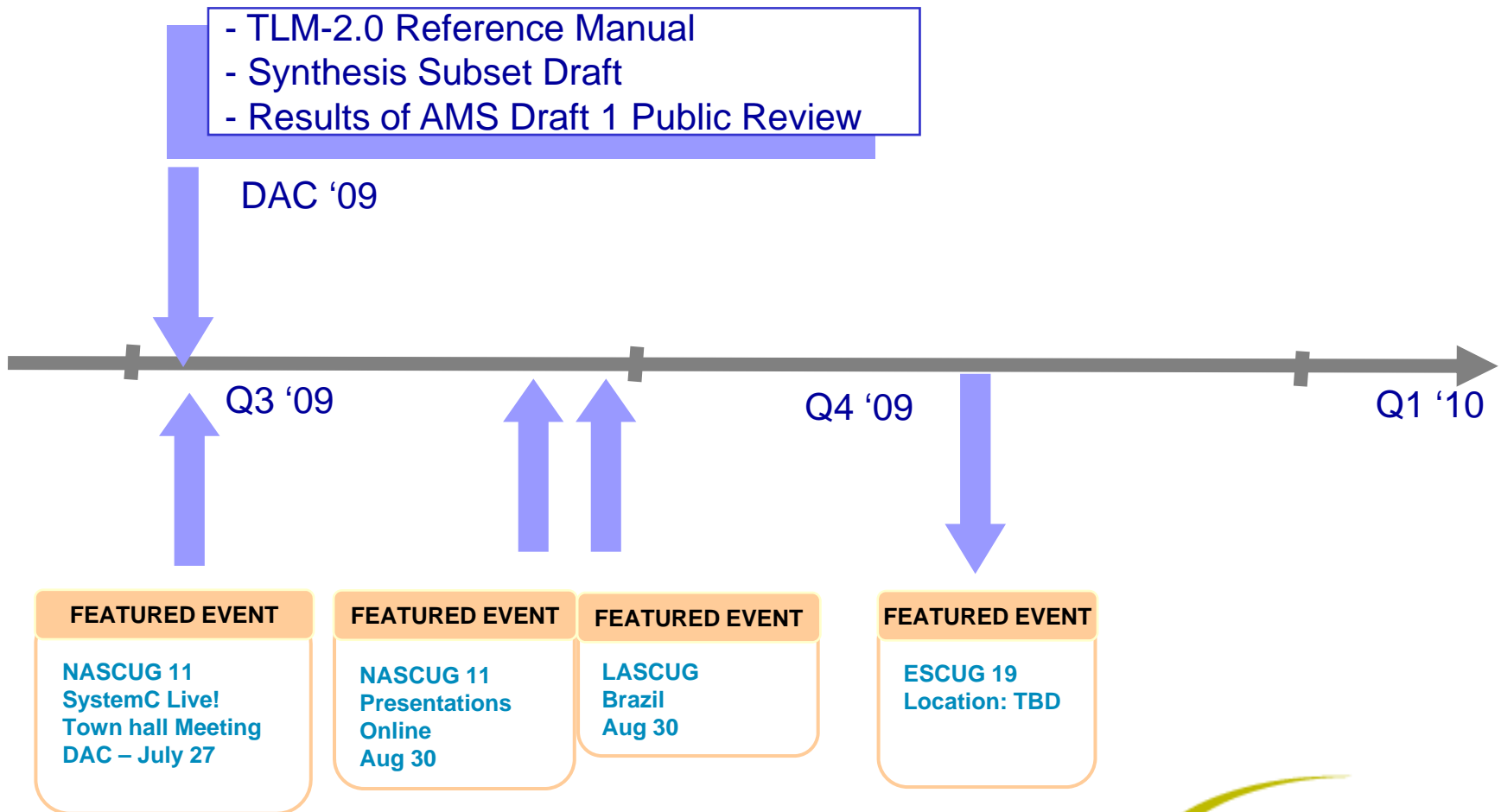


34 members

OSCI/SystemC Events And Activities



OSCI/SystemC Events and Activities Q3-Q4



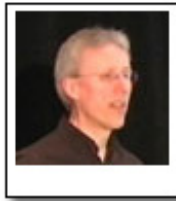
TLM-2.0 in Action Video Tutorial



- An Example-based Approach to Transaction-level Modeling and the New World of Model Interoperability



David Black
XtremeEDA



John Aynsley
Doulos



Zhu Zhou
Intel



Frank Schirrmeister
Synopsys



Jack Donovan
XtremeEDA
Organizer


- 5 Technical Presentations
 - Examples and in-depth details
 - Benefits new and experienced designers
-
- Over 1,000 downloads!
 - Available at: www.systemc.org/news/events/tlm20tutorial/

Transaction-Level Modeling WG Update

- TLM-2.0 released June 9, 2008; experiencing rapid adoption
 - 8,818 downloads as of 6/25/09
 - Includes Users Guide, implementation and examples
 - Encompasses:
 - ◆ Approximately Timed (AT) & Loosely Timed (LT) modeling
 - ◆ Temporal Decoupling
 - ◆ Direct Memory Interface
 - ◆ Debug Transactions
 - ◆ Extensible Base Protocol for modeling memory mapped buses
- Public release of TLM-2.0 Reference Manual
 - Accompanied by TLM library: release 2.0.1.
- Chair: Bart Vanthournout, CoWare
- Vice-Chair: James Aldis, Texas Instrument



Analog/Mixed-Signal WG Update

- Public review of the AMS Draft 1 kit completed in March 2009; the kit includes:
 - LRM
 - Requirements specification
 - Whitepaper “An Introduction to Modeling Embedded Analog/Mixed-Signal Systems using SystemC AMS Extensions”
- Results of public review announced 
 - WG is enhancing documentation
 - Update to AMS LRM in the works
 - Next: User’s guide for SystemC AMS extensions
- Steady membership growth: 53 individuals from 19 organizations
 - Solid support from semi industry, universities and EDA/ESL vendors
- Chair: Martin Barnasconi, NXP Semiconductors
Vice-Chair: Christoph Grimm, Vienna University of Technology

Language WG Update

- Interest in IEEE 1666 Standard continues strong
 - 27,793 total downloads of IEEE 1666-2005 LRM
 - 4,217 downloads Jan 1, 2009 to May 31, 2009
- Current LWG activity
 - Preparing a bug-fix release
 - Please report any bugs, such as incompatibilities between SystemC 2.2 and IEEE 1666-2005
 - ◆ www.systemc.org/about/contact_us/
- Chair: Mike Meredith, Forte

Synthesis WG Update

- Public review of draft 1.3 to start 09Q3; updates include:
 - Supported language constructs established
 - Added section on processes, clocks, resets
 - Added discussion on abstraction levels to introduction
 - Simplified and clarified
- Chair: Andres Takach, Mentor
- Vice-Chair: Mike Meredith, Forte



Configuration, Control & Inspection WG



- New working group announced February 24, 2009
- Charter: *To define standards that allow tools to interact with models in order to perform activities such as configuration, debug and analysis*
- Scope includes:
 - Configuration parameters ← This is the initial focus
 - Command and control
 - Registers
 - Save and restore
- 38 initial participants representing 24 organizations
- Chair: Trevor Wieman, Intel
Vice-Chair: Bart Vanthournout, CoWare

Summary

- OSCI continues to fuel the ESL industry with SystemC standards
- TLM-2.0 is seeing rapid adoption across the ecosystem
 - New TLM-2.0 in Action video tutorial
 - TLM-2.0 OSCI Reference Manual is now available
- SystemC AMS draft 1 has now completed public review
- Synthesis Subset draft 1.3 to be available for public review soon
- New “Configuration, Control & Inspection” WG formed and ramping
 - Still time to get in on the ground floor!

Visit www.systemc.org for details!