



Working Group Meeting June 13, 2012

Ernst Christen
WG Chair

christen.1858@comcast.net

Agenda

- ◆ Call to order
- ◆ Approval of agenda
- ◆ Administrative issues
 - Minutes of May 9, 2012 meeting
 - Review of IEEE patent policy
 - Fund raising status
 - DAC 2012 BOF:
At a crossroads – developing the next generation Analog/Mixed-Signal language standard(s)
- ◆ Project status and updates
- ◆ Next meeting
- ◆ AOB
- ◆ Adjourn

Administrative Issues

- ◆ Approval of minutes of WG meeting
 - Meeting of May 9, 2012
- ◆ Review of IEEE patent policy
 - <http://standards.ieee.org/board/pat/pat-slideset.pdf>
- ◆ Fund raising status
 - On hold to resolve issues related to IEEE processes
 - Joan Woolery met with Steve Mills, IEEE-SA chair, and Karen Bartleson, IEEE-SA chair-elect, on 5/14
 - Karen will sponsor effort
 - 2 options being explored: submission of application to IEEE board, and other avenues
 - IEEE clarified its position on managing contracts
 - WGs must use IEEE-SA Professional Services
 - Implies that we must raise an additional \$5k



Administrative Issues (contd.)

- ◆ DAC 2012 Birds of a Feather:
At a crossroads – developing the next generation Analog/Mixed-Signal language standard(s)
 - Organized by Martin Barnasconi, NXP, Lynn Bannister, Accellera
 - Discussions about SystemVerilog and SystemC, some Verilog-AMS
 - After about half an hour meeting attendees started to focus verification of large mixed-signal ICs
 - Real number modeling: event-driven representation of analog subsystems



Project Updates

- ◆ **VHPI-AMS**: David Smith
- ◆ **1076.1.1 integration**: David Smith
- ◆ **Other mandatory changes**: Ernst Christen
- ◆ **Frequency domain modeling**: Ernst Christen
- ◆ **Mixed netlists**: Ernst Christen
- ◆ **Table-driven modeling**: Joachim Haase
- ◆ **Vector/matrix operations**: Zhichao Deng



VHPI-AMS

- ◆ **4 members regular**
 - David Smith (champion), Ernst Christen, Yaseen Zaidi, Peter Ashenden
- ◆ **No progress**
- ◆ **Next steps**
 - Review functions (David)
 - Review Verilog VPI presentation created by Yaseen
 - Review Cadence VHPI-AMS material



1076.1.1 Integration

- ◆ **2 members regular (David Smith, Ernst Christen)**
- ◆ **No Progress**
 - Depends on baselined LRM
- ◆ **Next steps are:**
 - Peter to partition and include existing 1076.1.1 when working on new LRM.
 - David to develop requirements for Dimension support.
 - Review against SI language once the material is in the new LRM.



Other Mandatory Changes

- ◆ **No progress**
 - Depends on baselined LRM
- ◆ **Next steps**
 - Fund raising
 - Enter contract with Peter



Frequency Domain Modeling

- ◆ **4 regular members, 7 total**
 - Ernst Christen (champion), Joachim Haase, David Smith, Zhichao Deng, Subramanian Sivaramakrishnan, Brian Mulvaney, Thuy Tran
- ◆ **White paper describing all aspects related to support frequency domain modeling ready for review and approval by WG**
- ◆ **No meetings planned**



Vector/Matrix Operations

- ◆ **4 regular members of subcommittee**
 - Zhichao Deng (champion), David Bishop, Subramanian Sivaramakrishnan, Ernst Christen
- ◆ **Work is of high interest to 1076 working group**
- ◆ **Early draft of matrix_real package currently under review by subcommittee**



Table-Driven Modeling

- ◆ **Members of TDM subcommittee:**
 - Joachim Haase (champion), Ernst Christen, Arpad Muranyi, Alain Vachoux
- ◆ **Work is also of interest to 1076 working group**
- ◆ **Last meeting May 14, 2012**
 - Ernst held discussion with 1076 WG regarding opaque types
 - Received some valuable suggestions
 - Discussion about scope of supporting Touchstone files
- ◆ **Next steps**
 - Investigate callback architecture to support user-written reader functions
 - Protected types vs other approaches
 - Resolve issues raised regarding Touchstone support
- ◆ **Next phone conference of TDM subcommittee July 9, 2012**



Next Steps

- ◆ **1076.1 revision**
 - Resolve fundraising issues
- ◆ **Next meetings (announced at www.eda.org/vhdl-ams/):**
 - Wednesday, June 13, 2012, 8 am PDT (15:00 UTC)
 - Wednesday, August 8, 2012, 8 am PDT (15:00 UTC)

