# **IBIS Open Forum Minutes**

Meeting Date: **April 2, 2010** Meeting Location: **Teleconference** 

## **VOTING MEMBERS AND 2010 PARTICIPANTS**

Actel (Prabhu Mohan) Agilent Radek Biernacki, Ming Yan, Fangyi Rao AMD Nam Nguyen\* Ansoft Corporation (Steve Pytel) Apple Computer (Matt Herndon) (Fred Balistreri) Applied Simulation Technology ARM (Nirav Patel) Terry Jernberg\*, Wenliang Dai, Ambrish Varma Cadence Design Systems Syed Hug\*, Mike LaBonte\*, Tony Penaloza, Huyen Pham, **Cisco Systems** Bill Chen, Ravindra Gali, Zhiping Yang Anders Ekholm\*, Pete Tomaszewski Ericsson Freescale Jon Burnett, Om Mandhana **Green Streak Programs** Lynne Green Hitachi ULSI Systems (Kazuyoshi Shoji) Huawei Technologies (Jinjun Li) IBM Adge Hawes Infineon Technologies AG (Christian Sporrer) (Michael Mirmak), Myoung (Joon) Choi, Vishram Pandit, Intel Corporation **Richard Mellitz** IO Methodology Lance Wang\* LSI **Brian Burdick\*** Arpad Muranyi\*, Neil Fernandes, Zhen Mu Mentor Graphics Randy Wolff\* Micron Technology Nokia Siemens Networks GmbH Eckhard Lenski Samtec (Corey Kimble) Signal Integrity Software Walter Katz\*, Mike Steinberger, Todd Westerhoff, Barry Katz Brad Brim, Kumar Keshavan Sigrity Synopsys Ted Mido Teraspeed Consulting Group Bob Ross\*, Tom Dagostino Toshiba (Yasumasa Kondo) Xilinx Mike Jenkins ZTE (Huang Min) Zuken Michael Schaeder

## **OTHER PARTICIPANTS IN 2010**

AET, Inc. Mik Altera Joh

Mikio Kiyono John Oh, Hui Fu

Independent AbdulRahman (Abbey) Rafiq, Robert Badal	Avago Broadcom Curtiss-Wright ECL, Inc. eSilicon Exar Corp. Mindspeed National Semiconductor NetLogic Microsystems Renesas Technology Simberian Span Systems Corporation Summit Computer Systems Tabula TechAmerica Texas Instruments	Razi Kaw Mohammad Ali John Phillips Tom Iddings Hanza Rahmai Helen Nguyen Bobby Altaf Hsinho Wu* Eric Hsu, Edward Wu Takuji Komeda Yuriy Shlepnev Vidya (Viddy) Amirapu Bob Davis David Banas (Chris Denham) Bonnie Baker
Independent AbdulRahman (Abbey) Rafiq, Robert Badal		

In the list above, attendees at the meeting are indicated by \*. Principal members or other active members who have not attended are in parentheses. Participants who no longer are in the organization are in square brackets.

#### **UPCOMING MEETINGS**

The bridge numbers for future IBIS teleconferences are as follows:

Date	Meeting Number	Meeting Password
April 23, 2010	209 251 723	IBIS

For teleconference dial-in information, use the password at the following website:

https://cisco.webex.com/cisco/j.php?J=209251723

All teleconference meetings are 8:00 AM to 9:55 AM US Pacific Time. Meeting agendas are typically distributed seven days before each Open Forum. Minutes are typically distributed within seven days of the corresponding meeting. When calling into the meeting, follow the prompts to enter the meeting ID. For new, local international dial-in numbers, please reference the bridge numbers provided by Cisco Systems at the following link:

http://www.cisco.com/web/about/doing\_business/conferencing/index.html

NOTE: "AR" = Action Required.

# INTRODUCTIONS AND MEETING QUORUM

No new participants.

# **CALL FOR PATENTS**

Bob Ross called for any patents or pending patents related to the IBIS 3.2, IBIS 4.2, IBIS 5.0, Touchstone 2.0 or ICM 1.1 specifications. No patents were declared.

# MEMBERSHIP UPDATE AND TREASURER'S REPORT

Bob Ross reported that we have 20 members officially renewed. He is currently asking nonrenewed members to confirm their renewals. We are on target for a breakeven year.

#### **REVIEW OF MINUTES AND ARS**

Bob Ross called for comments regarding the minutes of the March 12, 2010 IBIS Open Forum teleconference. The minutes were approved without changes.

# WEB PAGE UPDATES

Syed Huq reported that the IBIS officers met to discuss a web update and migration of the site from TechAmerica to the eda.org server. TechAmerica also has mentioned that they want to give us FTP access. They cannot give a specific date for granting this access yet. Syed created a '/ibis/home' directory on eda.org for creating a new directory structure. Bob Ross noted that once we have control over updating our home page quickly, we'll be able to have a more dynamic website.

# MAILING LIST ADMINISTRATION

Mike LaBonte reported that there are ongoing issues with some emails going through the reflector - certain addresses always giving administrative replies. He has not just unsubscribed these users, but instead he sent emails to these addresses letting them know about the problems and giving them a week to respond. He ended up unsubscribing three emails. Many emails are rejected because they come from Stanford's SMTP servers. These servers are known sources of spam, but nothing can be done about it. There is a growing trend of services rejecting Stanford. Mike found some paid services (\$40-300/year) with perfect spam scores that could provide much more reliable service. He also looked at majordomo on the servers to see if he could specify SMTP servers that would be used. He did ask others who use the same service if they would like to chip in for a paid service. He has not received any responses yet.

If people notice they are not getting many emails from the IBIS reflector, they may want to check the archives to see if they have received all the recent emails.

MODEL LIBRARY UPDATE

Anders Ekholm reported that he has not updated the models recently. Bob Ross noted that Colin Warwick of Agilent sent out a survey recently asking about crowd sourcing on Wikipedia. He suggested a way of keeping a library of models updated by relying on many people updating them. Mike LaBonte noted that usually crowd sourcing requires material to be publically available, so that might be a glitch here, as some models are not freely downloadable. A crowd source link is found on Colin's blog at:

http://signal-integrity.tm.agilent.com/

# PRESS UPDATE

None.

MISCELLANY/ANNOUNCEMENTS None.

# **OPENS FOR NEW ISSUES**

None.

## **CLARIFICATION ISSUES**

Bob Ross has recently been clarifying to others what various members' roles are when they are in task groups and the Open Forum. He noted that the Open Forum is the only official body for approving specifications. The task groups' role is to work on specifications, but bring them to the Open Forum for official voting. IBIS 4.2 is the latest standard and IBIS 3.2 is the latest international standard. We do operate under formal rules that Bob showed (always found on the back of sign in sheets at the summit meetings).

# INTERNATIONAL/EXTERNAL ACTIVITIES

- DASC No update. The DASC file and e-mail archive may be found at:

http://www.dasc.org/

- P1735 Encryption No update. The IEEE Study Group on Encryption web reflector archives are found at:

http://www.eda-stds.org/ip-encrypt/hm/

#### -Conferences

Signal Propagation on Interconnects Workshop (SPI) is May 9 - 12, 2010 in Hildesheim, Germany. There is SI content and sometimes IBIS topics at this conference. The European IBIS Summit will be held in conjunction with this event on Wednesday afternoon.

## **TECHAMERICA STATUS**

No report.

## **IEC APPROVAL ACTIVITIES**

Randy Wolff reported that he emailed Tim Rotti, the technical officer of TC93, again to ask for an update. Tim Rotti previously said he would try to contact Victor Berman and ask him about IEC approval of IBIS. Randy has not heard back from Tim yet.

#### SUMMIT STATUS

#### -European Summit Planning

The summit is planned for Wednesday, May 12 from 12:30pm-5:30pm. This is after the SPI conference, which ends at noon. It will be held at the same hotel and location as the SPI conference in Hildesheim, Germany. Ralf Bruening is helping with local arrangements. The first announcement went out. Bob Ross noted that 4-5 presentations are penciled in so far. The second announcement will go out next week. Agilent, Mentor, Sigrity, Sintecs and Zuken are co-sponsors.

#### -DAC Summit Planning

The DAC summit is planned for June 15. Traditionally this meeting is the annual meeting with the election of officers. The first announcement will go out in about three weeks. DAC is in Anaheim, CA this year.

#### -Asian Summits Planning

The planning committee is discussing three potential summits this year in China, Japan and possibly Taiwan. Lance Wang noted that the mainland China IBIS summit is planned for the second week of November in Shenzhen. There is enough critical mass to hold the meeting, but more sponsors are encouraged.

Lance is working with EDA vendors and semiconductor companies to gauge sponsorship interest in a Taiwan meeting.

Sponsorship opportunities for all upcoming IBIS summits are available, with sponsors receiving free mentions in the minutes, agenda, and other announcements. Contact the IBIS Board for further details.

#### **IBIS QUALITY TASK GROUP**

Mike LaBonte reported that the group discussed QUAILs recently. They are also resuming discussion of a correlation document done by David Banas and Roy Leventhal. They are beginning to outline a new correlation document.

The Quality Task Group checklist and other documentation can be found at:

http://www.eda.org/ibis/quality\_wip/

## **IBIS MODEL REVIEW TASK GROUP**

No update.

## ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported that the group has had discussions on the email reflector about the clock times vector, initiated by Scott McMorrow. The group also discussed goals and processes last week. Arpad started a spreadsheet to track topics to be fixed and their status. The group is focusing on getting the necessary AMI fixes done quickly. The large AMI BIRD is getting broken up into smaller BIRDs right now.

Bob noted that some of the comments from the parser development last year should be brought to the task group's attention to make sure that all the ambiguities are fixed in the new BIRDs.

Task group material can be found at:

http://www.eda-stds.org/ibis/macromodel\_wip/

#### INTERCONNECT TASK GROUP

Bob Ross reported that Michael Mirmak will be resuming the chairmanship for the next meeting. The group started discussing the Model Connection Protocol proposal and a binary encoding proposal for Touchstone.

Task group material can be found at:

http://www.eda.org/ibis/adhoc/interconnect/

#### **NEW ISSUES**

None.

#### TSIRD1 – SPARSE MATRIX MAPPING

Bob Ross showed TSIRD1 for further review. This TSIRD proposes an index-pair mapping solution using two new keywords, [Number of Sparse Labels] and [Sparse Matrix Mapping]. This solution helps reduce file size by reducing the size of matrices with symmetries and zero values. Bob walked through an example in the TSIRD to show the proposed syntax. He called for comments. There were none. A vote on TSIRD1 is scheduled for the next meeting.

A full description of TSIRD1 is found at:

http://www.eda.org/ibis/tsirds/ and http://www.eda.org/ibis/tsirds/tsird1.0.pdf

#### **TSCHK2 BUG STATUS**

No BUGs to report.

## **IBISCHK5 BUG STATUS**

No new BUGs to report.

## **IBISCHK5 PROJECT**

Bob Ross noted that there are 8 open BUGs right now. A new project will be started to fix these BUGs. A new quality test case suite will be built as part of the project. BUG104 appears to be difficult to fix due to [Model] hierarchy.

#### **NEW ISSUES**

Arpad Muranyi noted that there is no link to TSIRDs on the Specifications page on the website. He requested that a link be added.

## NEXT MEETING

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The next IBIS Open Forum teleconference will be held April 23, 2010 from 8:00 to 10:00 AM US Pacific Standard Time. A vote is scheduled on TSIRD1 at this meeting.

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# NOTES

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This meeting was conducted in accordance with the GEIA Legal Guides and GEIA Manual of Organization and Procedure.

The following e-mail addresses are used:

#### majordomo@eda.org

In the body, for the IBIS Open Forum Reflector: subscribe ibis <your e-mail address>

In the body, for the IBIS Users' Group Reflector: subscribe ibis-users <your e-mail address>

Help and other commands: help

#### ibis-request@eda.org

To join, change, or drop from either or both: IBIS Open Forum Reflector (<u>ibis@eda.org</u>) IBIS Users' Group Reflector (<u>ibis-users@eda.org</u>) State your request.

#### ibis-info@eda.org

To obtain general information about IBIS, to ask specific questions for individual response, and to inquire about joining the EIA-IBIS Open Forum as a full Member.

#### ibis@eda.org

To send a message to the general IBIS Open Forum Reflector. This is used mostly for IBIS Standardization business and future IBIS technical enhancements. Job posting information is not permitted.

#### ibis-users@eda.org

To send a message to the IBIS Users' Group Reflector. This is used mostly for IBIS clarification, current modeling issues, and general user concerns. Job posting information is not permitted.

#### ibis-bug@eda.org

To report ibischk parser BUGs as well as tschk2 parser BUGs. The BUG Report Form for ibischk resides along with reported BUGs at:

http://www.eda.org/ibis/bugs/ibischk/ http://www.eda.org/ibis/bugs/ibischk/bugform.txt

The BUG Report Form for tschk2 resides along with reported BUGs at:

http://www.eda.org/ibis/tschk\_bugs/ http://www.eda.org/ibis/tschk\_bugs/bugform.txt

#### icm-bug@eda.org

To report icmchk1 parser BUGs. The BUG Report Form resides along with reported BUGs at:

http://www.eda.org/ibis/icm\_bugs/ http://www.eda.org/ibis/icm\_bugs/icm\_bugform.txt

To report s2ibis, s2ibis2 and s2iplt bugs, use the Bug Report Forms which reside at:

http://www.eda.org/ibis/bugs/s2ibis/bugs2i.txt http://www.eda.org/ibis/bugs/s2ibis2/bugs2i2.txt http://www.eda.org/ibis/bugs/s2iplt/bugsplt.txt

Information on IBIS technical contents, IBIS participants and actual IBIS models are available on the IBIS Home page:

http://www.eigroup.org/ibis/ibis.htm

Check the IBIS file directory on eda.org for more information on previous discussions and results:

http://www.eda.org/ibis/directory.html

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# **IBIS CURRENT MEMBER VOTING STATUS**

Standards									
	Interest	Ballot Voting	February 4,	February	March 12,	April 2,			
Organization	Category	Status	2010 2010	19, 2010	2010	2010			
Actel	Producer	Inactive	-	-	-	-			
Advanced Micro Devices	Producer	Inactive	-	-	-	Х			
Agilent Technologies	User	Inactive	Х	-	-	-			
Ansoft	User	Inactive	-	-	-	-			
Apple Computer	User	Inactive	-	-	-	-			
Applied Simulation Technology	User	Inactive	-	-	-	-			
ARM	Producer	Inactive	-	-	-	-			
Cadence Design Systems	User	Active	Х	Х	Х	Х			
Cisco Systems	User	Active	Х	Х	Х	Х			
Ericsson	Producer	Active	Х	Х	Х	Х			
Freescale	Producer	Inactive	Х	-	-	-			
Green Streak Programs	General Interest	Inactive	Х	-	-	-			
Huawei Technologies	Producer	Inactive	-	-	-	-			
Hitachi ULSI Systems	Producer	Inactive	-	-	-	-			
IBM	Producer	Active	Х	Х	Х	-			
Infineon Technologies AG	Producer	Inactive	-	-	-	-			
Intel Corp.	Producer	Inactive	Х	-	-	-			
IO Methodology	User	Active	Х	-	Х	Х			
LSI	Producer	Active	Х	Х	Х	Х			
Mentor Graphics	User	Active	Х	Х	Х	Х			
Micron Technology	Producer	Active	Х	Х	Х	Х			
Nokia Siemens Networks	Producer	Active	-	Х	Х	-			
Samtec	Producer	Inactive	-	-	-	-			
Signal Integrity Software	User	Active	Х	-	Х	Х			
Sigrity	User	Inactive	Х	-	-	-			
Synopsys	User	Inactive	Х	-	-	-			
Teraspeed Consulting	General Interest	Active	Х	Х	Х	Х			
Toshiba	Producer	Inactive	-	-	-	-			
Xilinx	Producer	Inactive	Х	-	-	-			
ZTE	User	Inactive	-	-	-	-			
Zuken	User	Inactive	Х	-	-	-			

#### I/O Buffer Information Specification Committee (IBIS)

CRITERIA FOR MEMBER IN GOOD STANDING:

- MUST ATTEND TWO CONSECUTIVE MEETINGS TO ESTABLISH VOTING MEMBERSHIP
- MEMBERSHIP DUES CURRENT
- MUST NOT MISS TWO CONSECUTIVE MEETINGS

INTEREST CATEGORIES ASSOCIATED WITH TECHAMERICA BALLOT VOTING ARE:

- USERS MEMBERS THAT UTILIZE ELECTRONIC EQUIPMENT TO PROVIDE SERVICES TO AN END USER.
- PRODUCERS MEMBERS THAT SUPPLY ELECTRONIC EQUIPMENT.
- GENERAL INTEREST MEMBERS ARE NEITHER PRODUCERS NOR USERS. THIS CATEGORY INCLUDES, BUT IS NOT LIMITED TO, GOVERNMENT, REGULATORY AGENCIES (STATE AND FEDERAL), RESEARCHERS, OTHER ORGANIZATIONS AND ASSOCIATIONS, AND/OR CONSUMERS.