

IBIS Open Forum Minutes

Meeting Date: **September 10, 2010**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2010 PARTICIPANTS

Agilent	Radek Biernacki, Ming Yan, Fangyi Rao, Gilbert Berger, Amolak Badeasa, Jose Pino, Junaid Khan
AMD	Nam Nguyen*
Ansys (Ansoft Corporation)	Danil Kirsanov
Apple Computer	(Matt Herndon)
Applied Simulation Technology	(Fred Balistreri)
ARM	(Nirav Patel)
Cadence Design Systems	Terry Jernberg*, Wenliang Dai, Ambrish Varma
Cisco Systems	Syed Huq, Mike LaBonte*, Tony Penaloza, Huyen Pham, Bill Chen, Ravindra Gali, Zhiping Yang
Ericsson	Anders Ekholm*, Pete Tomaszewski
Freescale	Jon Burnett, Om Mandhana
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	Yutaka Uematsu
Huawei Technologies	(Jinjun Li)
IBM	Adge Hawes, Greg Edlund*
Infineon Technologies AG	Christian Sporrer
Intel Corporation	Michael Mirmak*, Myoung (Joon) Choi, Vishram Pandit, Richard Mellitz
IO Methodology	Lance Wang*
LSI	Brian Burdick*
Mentor Graphics	Arpad Muranyi*, Neil Fernandes, Zhen Mu
Micron Technology	Randy Wolff*
Nokia Siemens Networks GmbH	Eckhard Lenski*
Samtec	(Corey Kimble)
Signal Integrity Software	Walter Katz*, Mike Steinberger, Todd Westerhoff, Barry Katz
Sigrity	Brad Brim, Kumar Keshavan, Srdjan Djordjevic, Ben Franklin
Synopsys	Ted Mido, Paul Lo, Geoffrey Ying, Frank Lee
Teraspeed Consulting Group	Bob Ross*, Tom Dagostino
Texas Instruments	Bonnie Baker*
Toshiba	Yoshihiro Hamaji
Xilinx	Mike Jenkins
ZTE	(Huang Min)
Zuken	Michael Schaefer, Ralf Bruening

OTHER PARTICIPANTS IN 2010

Actel	(Prabhu Mohan)
AET, Inc.	Mikio Kiyono
Altera	John Oh, Hui Fu
Avago	Razi Kaw
Bosch Car Multimedia	Rene Steinberg, Patric Kessler
Broadcom	Mohammad Ali
Curtiss-Wright	John Phillips
ECL, Inc.	Tom Iddings
eSilicon	Hanza Rahmai
Exar Corp.	Helen Nguyen
ICT-Lanto	Steven Wong
JEITA	Atsushi Ishikawa
Leading Edge	Pietro Vergine
Magna Design Automation	Anand Ramalingam
Mindspeed	Bobby Altaf
National Semiconductor	Hsinho Wu
NetLogic Microsystems	Eric Hsu, Edward Wu, Antonio Orphanou, Halil Civit
NXP Semiconductors	Gerald Krasemann
Politecnico di Torino	Igor Stievano, Stefano Grivet-Talocia, Piero Triverio, Flavio Canavero
Renesas Technology	Takuji Komeda
Siemens, AG.	Manfred Maurer, Michael Flint
Simberian	Yuriy Shlepnev
Span Systems Corporation	Vidya (Viddy) Amirapu
Summit Computer Systems	Bob Davis
Tabula	David Banas
TechAmerica	(Chris Denham)
Vitesse Semiconductor	Bob McDonough
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
October 1, 2010	209 356 282	IBIS

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

<https://cisco.webex.com/cisco/j.php?J=209356282>

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

Michael Mirmak 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.

REVIEW OF MINUTES AND ARS

Randy Wolff called for comments regarding the minutes of the August 20, 2010 IBIS Open Forum teleconference. The minutes were approved without changes.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Michael Mirmak reported that we still have 31 members.

Bob Ross reported that we have a significant surplus of funds for the year due to six parser sales in 2010 as well as one extra member above the budgeted 30 members. The next step is to reconcile the account with TechAmerica. We will need to spend our surplus by the end of the year. Michael noted that we might be able to spend some money on further parser fixes. He is open to ideas for spending the surplus.

WEB PAGE UPDATES

Michael Mirmak noted changes to the IBIS Interconnect task group page to add minutes and presentations. Links to task groups were updated. The Futures group is now listed as inactive/archived.

Bob Ross recommended moving some links off of the home page to clean it up and create an archives section.

MAILING LIST ADMINISTRATION

Mike LaBonte reported that he had 5 new subscribers since the last meeting. There are still

issues with server reputation. Some users are still getting emails despite warnings from their email servers. Mike may announce in a future meeting how many emails were sent to the mailing lists so users checking the minutes will be able to cross reference the number of emails they have received.

MODEL LIBRARY UPDATE

No report.

MISCELLANY/ANNOUNCEMENTS

None.

OPENS FOR NEW ISSUES

None.

INTERNATIONAL/EXTERNAL ACTIVITIES

- DASC

Michael Mirmak noted that there have been no recent meetings and no information relative to IBIS lately. 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/>

-VHDL-AMS Table-Driven Models

Arpad Muranyi reported that the next meeting is on Monday, so he will have a report for the next teleconference. Meetings are once a month on the first Monday of the month.

-Conferences

The IEEE Conference on Electrical Performance of Electronic Packaging and Systems (EPEPS) is October 24-27, 2010 in Austin, Texas. There are usually topics of interest to IBIS. More information can be found at the following link:

<http://epeps.ece.illinois.edu/>

-Press Update

None.

TECHAMERICA STATUS

Michael Mirmak reported that TechAmerica is moving to a new physical address in Washington,

D.C. Responses may be slow in the near term. Michael noted that the ANSI standardization process remains the same. There may be an ANSI audit of TechAmerica in 2011 for review of TechAmerica status. Also, there is an IEC meeting in Seattle in October. We will try to have some attendees at the meeting. There will be some training coming up on TechAmerica's new online standards system beginning September 13 and September 21.

IEC APPROVAL ACTIVITIES

Randy Wolff reported that he re-contacted Stan Krolkoski, the new DASC chair. Stan previously forwarded Randy's email to several people at IEC including Victor Berman. Stan again sent an email to IEC members, but so far there has been no response.

Michael Mirmak suggested Randy ask Dennis Brophy at Mentor for help.

SUMMIT STATUS

-China Summit Planning

The meeting is at the Four Points by Sheraton hotel in Shenzhen on Tuesday, November 9. Lance Wang and Bob will handle the signups. The deadline to submit presentations is October 12 to allow time to print the booklets. Bob reported that the third announcement went out. We are beginning the signups. Lance is coordinating vendor tables. Lance suggested that the next announcement include clear language noting that the presentations will be reviewed for content. The primary sponsor of the event is Huawei Technologies. Co-sponsors include Agilent Technologies, Ansoft, Cadence Design Systems, Cybernet, Intel, IO Methodology, Mentor Graphics, Signal Integrity Software (SiSoft), Sigrity, Synopsys and ZTE.

-Taiwan Summit Planning

The meeting will be held Friday, November 12 at the Sherwood Hotel in Taipei near Intel. Sigrity will assist with the registration. Bob reported that the first announcement has gone out. One presentation has already been submitted. Vendor table are being arranged. A booklet is being planned, so the presentation submittal deadline is October 22. Co-sponsors are Agilent Technologies, Avant Technology (IO Methodology), Foxconn, ICT-Lanto, Intel, Sigrity and Synopsys.

-Japan Summit Planning

The meeting will be Monday, November 15 at the JEITA headquarters near Tokyo Station. No lunch is planned. Bob Ross reported that he is planning to send out the first announcement next week. The presentation deadline will be about one week before the meeting. JEITA staff will handle the signups.

-DesignCon 2011 Planning

EE Times is the new owner. DesignCon is January 31 – February 3, 2011. The Summit is tentatively scheduled for February 3. Contract details are being worked out.

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 they are working on a presentation for the upcoming summits including some information on the IEEE Feature Selective Validation. The next meeting is September 21.

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 finished work on an AMI clarifications BIRD that has been submitted to the Open Forum. They are still working on the AMI flow BIRD and other AMI clarifications BIRDS.

Task group material can be found at:

http://www.eda-stds.org/ibis/macromodel_wip/

INTERCONNECT TASK GROUP

Michael Mirmak reported that the group's website has been updated with minutes and presentations. They are currently discussing MCP and IBIS-ISS on alternating weeks. The last meeting covered IBIS-ISS, and there will be a rev 0.6 of the document for the next meeting. A skeleton draft of the MCP proposal is being drafted as well.

Task group material can be found at:

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

NEW ISSUES

None.

BIRD113: WEAK PULL-UP AND WEAK PULL-DOWN RESISTANCE AND VOLTAGE

Greg Edlund circulated an updated version of the BIRD after the last meeting. There have been discussions in the last few weeks on possible additions of a current source. Greg does not plan to make additional changes for this. Michael requested that Greg send him the BIRD113.1 revision for posting and review. This version includes some changes requested in the last Open Forum teleconference.

Bob Ross noted that we still need to discuss the difference between a weak and strong termination. Walter Katz asked Greg to clarify that this BIRD does not change how models simulate and only adds information for checking purposes. Greg confirmed this is the case.

BIRD114.1: IBIS-AMI DEFINITION CLARIFICATIONS

Arpad Muranyi stated that the BIRD clarifies questions brought up by the parser developer. The 114.1 revision made minor changes to some examples to be consistent with the new definition that strings must be surrounded by double quotes. Bob Ross noted that BIRDS clarifying the AMI section are coming in piecemeal, and the whole section may need to be reorganized. He expressed concern about this editing process. Walter Katz added that he tried to propose last year that the whole section be re-written, and it was decided to re-write individual pieces instead. The Open Forum needs to recognize the best way to get a fixed AMI section completed. Walter thinks the real changes have been to the AMI document describing the AMI language and the AMI interface to the DLLs. He proposed that these should be separate documents taken out of the IBIS Specification and allowed to be revised separately and published in a format allowing for graphics. He also said that deprecation issues need to be clarified and addressed. Arpad Muranyi replied that BIRD114.1 and the final outcome of all of these future clarification BIRDS are conveying a technical clarification in the specification, and they are all overlapping. He sees that it is impossible in one BIRD or the other to give the final outcome of the specification language. He felt it was important to address small pieces incrementally in order to make progress. He thinks a careful editing process can be used to rewrite the final AMI section.

Michael Mirmak asked if there was ever an approach discussed to address a few pages at a time. Arpad had not thought about that approach, but he did not think it would work. Walter noted that the organization of the document was not good, as terms are used before they are defined. Arpad added that he is trying to be very careful to keep track of the changes that will be required by adding notes to each of the BIRDS. Bob agreed with the current process, and his expectation is that before any release of an IBIS 5.1 specification, a thorough review of section 6c will be needed. Bob also feels that there should be an editorial committee.

Walter made a specific request noting that there will be several BIRDS coming up from SiSoft, and he wants to write them without constraints of them being in the usual text format. This would be done with the understanding that formatting changes may be made in the future as required for inclusion in IBIS 5.1. The Open Forum will need to decide how to proceed with formatting of the full IBIS specification. Michael added that it would require a BIRD to remove a section from IBIS, but then the removed section could be treated like Touchstone 2.0 or ICM as a separate document.

Bob asked about whether in BIRD114.1 a string can span multiple lines or if only a Description can span multiple lines. Walter noted that the Description definition is detailed so that EDA tools can display a text box with 120 characters of width. This does not exclude carriage return/line feeds in other strings. Anders Ekholm suggested that the BIRD clarify that control characters are allowed within strings.

TSCHK2 BUG STATUS

No BUGs to report. Michael Mirmak noted that the source code is available for purchase.

IBISCHK5 BUG STATUS

Bob Ross introduced BUG121. This BUG noted that a working test for a missing [Component] was corrupted in the IBIS 5.0.0 parser. The BUG was classified as Severe severity, Medium priority and Open status.

IBISCHK5 UPDATE STATUS

Bob Ross reported that he distributed a first cut of the new parser to a few people for review.

IBIS-ISS STATUS

Michael Mirmak reported that the document is being updated to Revision 0.6 and discussed in the Interconnect task group meeting. Comments are welcome.

The work in progress document can be found in the following directory:

http://www.eda.org/ibis/ibis-iss_wip/

NEW ISSUES

None.

NEXT MEETING

The next IBIS Open Forum teleconference will be held October 1, 2010 from 8:00 to 10:00 AM US Pacific Standard Time.

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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 (ibis@eda.org)
IBIS Users' Group Reflector (ibis-users@eda.org)
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

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	July 9, 2010	July 30, 2010	August 20, 2010	September 10, 2010
Advanced Micro Devices	Producer	Active	X	X	-	X
Agilent Technologies	User	Active	X	X	X	-
Ansys	User	Inactive	-	-	-	-
Apple Computer	User	Inactive	-	-	-	-
Applied Simulation Technology	User	Inactive	-	-	-	-
ARM	Producer	Inactive	-	-	-	-
Cadence Design Systems	User	Active	-	X	X	X
Cisco Systems	User	Active	X	X	X	X
Ericsson	Producer	Inactive	X	-	-	X
Freescale	Producer	Inactive	-	-	-	-
Green Streak Programs	General Interest	Inactive	-	-	-	-
Huawei Technologies	Producer	Inactive	-	-	-	-
Hitachi ULSI Systems	Producer	Inactive	-	-	-	-
IBM	Producer	Active	X	X	X	X
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Intel Corp.	Producer	Active	X	X	X	X
IO Methodology	User	Active	X	X	-	X
LSI	Producer	Active	X	X	X	X
Mentor Graphics	User	Active	X	X	X	X
Micron Technology	Producer	Active	X	-	X	X
Nokia Siemens Networks	Producer	Active	X	X	X	X
Samtec	Producer	Inactive	-	-	-	-
Signal Integrity Software	User	Active	X	X	X	X
Sigrity	User	Inactive	-	-	-	-
Synopsys	User	Inactive	-	-	-	-
Teraspeed Consulting	General Interest	Active	X	X	X	X
Texas Instruments	Producer	Inactive	-	-	-	X
Toshiba	Producer	Inactive	-	-	-	-
Xilinx	Producer	Inactive	-	-	-	-
ZTE	User	Inactive	-	-	-	-
Zuken	User	Inactive	-	-	-	-

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.