

IBIS Open Forum Minutes

Meeting Date: **March 11, 2011**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2011 PARTICIPANTS

Agilent	Radek Biernacki*, Fangyi Rao
AMD	(Nam Nguyen)
Ansys (Ansoft Corporation)	Samuel Martens
Apple Computer	(Matt Herndon)
Applied Simulation Technology	Norio Matsui
ARM	(Nirav Patel)
Cadence Design Systems	Terry Jernberg*, Ambrish Varma, Dennis Nagle
Cisco Systems	Syed Huq*, Mike LaBonte*, Luis Boluna, Ashwin Vasudevan, Zhiping Yang
Ericsson	Anders Ekholm*
Freescale	(Jon Burnett)
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	(Kazuyoshi Shoji)
Huawei Technologies	Xiaoqing Dong
IBM	Adge Hawes*, Greg Edlund
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Michael Mirmak*, Udy Shrivastava
IO Methodology	Lance Wang*
LSI	Brian Burdick*
Mentor Graphics	Arpad Muranyi*, Ed Bartlett, Vladimir Dmitriev-Zdorov, Steve Kaufer, Chuck Ferry
Micron Technology	Randy Wolff*
Nokia Siemens Networks GmbH	Eckhard Lenski*
Signal Integrity Software	Walter Katz*, Todd Westerhoff, Mike Steinberger, Barry Katz
Sigrity	Raymond Chen, Kumar Keshavan
Synopsys	Andy Tai, Ted Mido, Scott Wedge
Teraspeed Consulting Group	Bob Ross*, Kellee Crisafulli, Tom Dagostino, Scott McMorro
Texas Instruments	Casey Morrison, Alfred Chong
Toshiba	(Yasumasa Kondo)
Xilinx	(Raymond Anderson)
ZTE	(Huang Min)
Zuken	(Michael Schaefer)

OTHER PARTICIPANTS IN 2011

AET	Mikio Kiyono
Altera	Hui Fu, Zhuyuan Liu, Julia Nekrylova

Avago	Weiping He, Minh Quach, Sari Tocco
Bayside Design	Elliot Nahas
Broadcom	Mohammad Ali
Exar Corporation	Helen Nguyen
Granite River Labs	Johnson Tan, Mike Engbretson, Quintin Anderson
High Speed Design Center	Ben Chia
ICT-Lanto	Steven Wong
KEI Systems	Shinichi Maeda
Maxim Integrated Products	Hassan Rafat
National Semiconductor	Hsinho Wu, Pegah Alavi, John Goldie
Oracle	Gustav Blando
Pristine Signals	AbdulRahman (Abbey) Rafiq
Renesas Electronics	Takuji Komeda
Simberian	Yuriy Shlepnev
TechAmerica	(Chris Denham)
Vitesse Semiconductor	Sirius Tsang
Independent	Yoichi Niioka

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 1, 2011	209 699 747	IBIS

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

<https://cisco.webex.com/cisco/j.php?J=209699747>

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 February 18, 2011 IBIS Open Forum teleconference. The minutes were approved with no changes.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Michael Mirmak noted that we are beginning to receive renewals for 2011. Renewal notices for membership have been sent out. If you have not received a renewal notice, contact any member of the board.

Bob Ross added that he has not received any updates on current membership status or financials yet from TechAmerica.

WEB PAGE UPDATES

No report.

MAILING LIST ADMINISTRATION

Mike LaBonte reported that there were very few issues recently. He has not had time to make any progress on his email archive project.

MODEL LIBRARY UPDATE

No update.

MISCELLANY/ANNOUNCEMENTS

None.

OPENS FOR NEW ISSUES

Bob Ross noted that BUG126 and BIRD128 are new items to discuss in the agenda.

INTERNATIONAL/EXTERNAL ACTIVITIES

- DASC

Michael Mirmak reported that he missed the last meeting. He was not aware of any recent

discussions related to IBIS. 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 he missed the last meeting, so he had no update. More information can be found at:

http://www.eda.org/twiki/bin/view.cgi/P10761/ProjectsArea#Table_driven_Modeling_Champion_J

-Conferences

The 2011 IEEE Workshop on Signal Propagation on Interconnects (SPI) will be held in Naples, Italy on May 8-11, 2011. The call for papers is out. More information can be found at:

<http://www.spi2011.unina.it/>

EMCCompo2011, the 8th International Workshop on Electromagnetic Compatibility of Integrated Circuits, will be held in Dubrovnik, Croatia, November 6-9, 2011. Organizers of the event have contacted the IBIS Open Forum to see if there is interest in having a tutorial session on IBIS. April 1 is the deadline for registration. More information can be found at:

<http://www.emccompo2011.org>

-Press Update

None.

TECHAMERICA STATUS

Michael Mirmak reported that members may see notes related to the KAVI system as we work to update the system with the correct membership roles. Mike LaBonte was able to subscribe to a list in KAVI. Michael is trying to find out what the groups within KAVI really mean. Bob Ross noted that the meeting agenda was not sent out through KAVI. Michael confirmed that he does not want to send it out through KAVI until the email lists are correct.

DOCUMENTATION UPDATE

Michael Mirmak reported that he received additional keyword formatting suggestions from Arpad Muranyi. Arpad liked the Visio table changes but he did not like the color formatting. Arpad would like to see a better way of distinguishing the keyword heading from the keyword itself. Bob Ross preferred black and white on keywords and working with fonts instead of color. Bob requested an editorial meeting soon for further discussion.

New IBIS 5.0 documentation can be reviewed at:

http://www.eda.org/ibis/reformat_wip/

IEC APPROVAL ACTIVITIES

Randy Wolff reported that he is still awaiting a report from Dennis Brophy following his meeting with his IEC counterparts in Japan at the end of January. Randy sent a reminder email to Dennis this last week. Randy took the AR to forward an email to Arpad Muranyi to see if Arpad can help with contacting Dennis.

SUMMIT STATUS

-SPIE IBIS Summit

The 15th IEEE Workshop on Signal Propagation on Interconnects will be held in Naples, Italy, May 8-11, 2011. Michael Mirmak reported that we are unable to get a conference room through SPI and other options for rooms are cost prohibitive. Bob Ross added that our planning fell behind due to lack of responsiveness. We would need money up front to secure a room. Michael proposed that we consider not holding a meeting at SPI this year. There were no objections. Bob suggested we keep considering EMCCompo2011 as a possible Summit event.

-DAC IBIS Summit

The Design Automation Conference (DAC) is June 6-9, 2011 in San Diego, CA. The IBIS Summit will be held June 7. A conference room has been secured at the Omni Hotel. This meeting will include the annual election of officers. The first call for papers should go out early next month.

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 is in the process of designing a new golden waveform system with more advanced features. They are also having an interconnection language discussion. The group is meeting weekly on Tuesdays at 8AM PST.

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 is discussing a crosstalk BIRD draft that should be voted on at the next meeting.

Task group material can be found at:

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

INTERCONNECT TASK GROUP

Michael Mirmak reported that the group recently discussed integration of Touchstone, MCP and IBIS-ISS when it comes to port mapping in S-Parameter files. Some methodology for ports to nodes mapping is needed for Touchstone files.

Task group material can be found at:

http://www.eda.org/ibis/interconnect_wip/

NEW ADMINISTRATIVE ISSUES

At the end of the meeting, Michael Mirmak discussed handling of BIRD and BUG submissions online through a web form.

BIRD116: ADD IBIS-ISS TO [EXTERNAL MODEL] AND [EXTERNAL CIRCUIT] AS A SUPPORTED LANGUAGE

Walter Katz thought that BIRDS 116, 117 and 118 should be tabled for discussion in this meeting as discussion is needed in the task groups after Walter's package modeling proposal he made in the task group meetings. Arpad Muranyi noted that he is planning to make changes to these BIRDS. Walter moved to table these BIRDS. There was no objection.

BIRD117.2: PARAMETERIZE A_TO_D AND D_TO_A CONVERTERS

No discussion.

BIRD118.1: ANALOG PARAMETER ASSIGNMENTS

No discussion.

BIRD120: IBIS-AMI FLOW CORRECTION

Arpad Muranyi reported that he would like to hold off on a vote on BIRD120 until the crosstalk BIRD is finalized in case changes need to be made to BIRD120. Walter Katz moved to table the BIRD discussion. There were no objections.

BIRD121: IBIS-AMI NEW RESERVED PARAMETERS FOR DATA MANAGEMENT

Walter Katz noted that he needs to make changes to BIRDS 121-124 and present changes in the ATM task group. Walter moved to table the BIRD discussion. There were no objections.

BIRD122: IBIS-AMI NEW RESERVED PARAMETERS FOR ANALOG MODELING

No discussion.

BIRD123: IBIS-AMI NEW RESERVED PARAMETERS FOR JITTER/NOISE

No discussion.

BIRD124: IBIS-AMI NEW RESERVED PARAMETERS FOR DEPENDENCY TABLES

No discussion.

BIRD125: MAKE IBIS-ISS AVAILABLE FOR IBIS PACKAGE MODELING

Arpad Muranyi moved to table the BIRD discussion. There were no objections.

BIRD127: IBIS-AMI TYPOGRAPHICAL CORRECTIONS

Arpad Muranyi noted that some changes to the BIRD are expected. Arpad moved to table the BIRD discussion. There were no objections.

BIRD128: ALLOW AMI_PARAMETERS_OUT TO PASS AMI_PARAMETERS_IN DATA ON CALLS TO AMI_GETWAVE

Walter Katz introduced the BIRD. He noted that a mistake was made in the original AMI BIRDS by not putting AMI_parameters_in into the GetWave. In order to implement communications from the Rx model to the Tx AMI_GetWave call this BIRD modifies the use of the argument AMI_parameters_out to point to AMI_parameters_in data when calling the AMI_GetWave function. The impact of the BIRD is to backchannel modeling. At a minimum, AMI_parameters_out should be a null pointer. Arpad Muranyi wondered why we want to handle an in parameter with an out parameter instead of fixing the specification. Radek Biernacki expressed similar concerns. Walter said that adding arguments to the AMI_GetWave call is a difficult C coding issue and this solution is much easier to deal with. He suggested the EDA vendors consult their coding experts to understand the implications.

Bob Ross moved to table discussion and bring up the BIRD in the next ATM call. The motion passed without objection.

TSCHK2 BUG STATUS

No new BUGs to report.

IBISCHK5 BUG STATUS

BUG126 was filed by Walter Katz and Bob Ross. Spurious characters after a Reserved_Parameters parameter name are not detected for some Reserved_Parameters. The BUG was classified as Moderate severity, High priority and Open status.

IBISCHK5 UPDATE STATUS

Bob Ross reported that he is expecting an update today to resolve BUG116 and BUG123 which were not fixed properly in the last code release. If the update looks good it will be distributed.

IBIS-ISS SPECIFICATION DRAFT

Michael Mirmak issued the second call for comment on the IBIS-ISS draft. He noted that Radek Biernacki submitted some comments from reviewers at Agilent. Many of the comments related to the W-element syntax. Bob Ross moved that we discuss all the comments in the next Interconnect task group meeting. There were no objections.

The draft 1 revision can be reviewed at:

http://www.eda.org/pub/ibis/ibis-iss_wip/IBIS_ISS_review_draft_1.pdf

NEW TECHNICAL ISSUES

Bob Ross noted that he has a draft of a C_comp proposal BIRD he may introduce at the next meeting. Bob and Walter Katz have different approaches to handling the C_comp corner assignment fix. Bob's approach focuses solely on C_comp while Walter's approach creates a method for assigning all [Model] parameters to specific corners.

NEXT MEETING

The next IBIS Open Forum teleconference will be held April 1, 2011 from 8:00 to 10:00 AM US Pacific Standard Time. The following Open Forum teleconference will be held April 22, 2011.

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/bugspl.txt>

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

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

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	January 28, 2011	February 3, 2011	February 18, 2011	March 11, 2011
Advanced Micro Devices	Producer	Inactive	-	-	-	-
Agilent Technologies	User	Active	X	X	X	X
Ansys	User	Inactive	-	X	-	-
Apple Computer	User	Inactive	-	-	-	-
Applied Simulation Technology	User	Inactive	-	X	-	-
ARM	Producer	Inactive	-	-	-	-
Cadence Design Systems	User	Active	X	X	-	X
Cisco Systems	User	Active	X	X	X	X
Ericsson	Producer	Active	X	X	-	X
Freescale	Producer	Inactive	-	-	-	-
Green Streak Programs	General Interest	Inactive	-	X	-	-
Huawei Technologies	Producer	Inactive	-	X	-	-
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	X
LSI	Producer	Active	-	-	X	X
Mentor Graphics	User	Active	X	X	X	X
Micron Technology	Producer	Active	X	-	X	X
Nokia Siemens Networks	Producer	Inactive	-	X	-	X
Signal Integrity Software	User	Active	X	X	X	X
Sigrity	User	Inactive	-	X	-	-
Synopsys	User	Inactive	-	X	-	-
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.