IBIS Open Forum Minutes

Meeting Date: July 17, 2009

VOTING MEMBERS AND 2009 PARTICIPANTS

Actel	(Prabhu Mohan)
Agilent Technologies	Yutao Hu, Fangyi Rao, Saliou Dieye
AMD	Nam Nguyen
Ansoft Corporation	Steve Pytel
Apple Computer	(Matt Herndon)
Applied Simulation Technology	(Fred Balistreri)
ARM	V. Muniswara Reddy
Cadence Design Systems	Terry Jernberg, Ambrish Varma
Cisco Systems	Luis Boluna, Tram Bui, Bill Chen, Syed Huq*, Mike LaBonte*, Pedo Miran Huyen Pham, AbdulRahman (Abbey) Rafiq, Ashwin Vasudevan, Zhiping Yang
Ericsson	Anders Ekholm
Freescale	Jon Burnett, Om Mandhama
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	(Kazuyoshi Shoji)
Huawei Technologies	Xiaoqing Dong, Chunxing Huang, Guan Tao*
IBM	Adge Hawes
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Michael Mirmak*, Jon Powell, Sirisha Prayaga
IO Methodology	Li (Kathy) Chen, Lance Wang*, Zhi (Benny) Yan
LSI	Brian Burdick*
Marvell Semiconductor	(Itzik Peleg)
Mentor Graphics	Weston Beal, Vladimir Dmitriev-Zdorov, Zhen Mu, Arpad Muranyi*
Micron Technology	Randy Wolff
Nokia Siemens Networks GmbH	Eckhard Lenski*
Samtec	(Corey Kimble)
Signal Integrity Software	Barry Katz, Walter Katz*, Todd Westerhoff
Sigrity	Sam Chitwood
Synopsys	Ted Mido
Teraspeed Consulting Group	Bob Ross*
Texas Instruments	Pavani Jella
Toshiba (I.S. Corporation)	(Yasumasa Kondo)
Xilinx	[David Banas]
ZTE	(Ying Xiong)
Zuken	Michael Schaeder, Ralf Bruening

OTHER PARTICIPANTS IN 2009

AET	Mikio Kiyono

Bayside Design	Stephen Coe, Elliot Nahas
Circuit Spectrum	Zaven Tashjian
CST	Antonio Ciccomancini, Martin Schauem
Curtiss-Wright Embedded Computing	J. Phillips
EM Integrity	Guy de Burgh
Exar	Helen Nguyen
GEIA	(Chris Denham)
ICT Solutions	Steven Wong
IdemWorks	Michelangelo Bandinu
Juniper	Kevin Ko
Leventhal Design & Communications	Roy Leventhal
Maxim Integrated Products	Ron Olisar
Mindspeed Technologies	Bobby Alkay
NetLogic Microsystems	Eric Hsu
Politecnico di Torino	Igor Stievano
Sanmina SCI	Vladimir Drivanenko
Sedona International	Joe Socha
Siemens	Manfred Maurer
Signal Consulting Group	Timothy Coyle, Nicole Mitchell
Simberian	Yuriy Shlepnev
Xsigo Systems	Robert Badel
Independent	Ian Dodd

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	Telephone Number	Meeting ID
August 7, 2009	1-866-432-9903, Option #3	207 965 694

Note that attendees are advised to join the on-line collaboration system through the link below **before** calling into the bridge:
https://cisco.webex.com/cisco/j.php?J=207965694, password: IBIS

All 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, press 3 to attend the meeting, then follow the prompts to enter the meeting ID and password. 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 or ICM 1.1 specifications. No patents were declared.

MEMBERSHIP UPDATE AND TREASURER'S REPORT
Michael Mirmak reported that 24 membership renewals had been confirmed, with two additional membership renewals being investigated. Participants were asked to contact the board if they had experienced any difficulty with renewals. The membership roles will be cleaned after the DAC summit meeting.

REVIEW OF MINUTES AND ARS
Michael Mirmak called for comments regarding the minutes of the June 26, 2009 IBIS Open Forum teleconference. The minutes were approved without changes.

WEB PAGE UPDATES
Syed Huq reported that Nokia has been added to the roster. Additionally, the Free Tools pages have been updated with a statement of free S2IBIS3 support from IO Methodology.

MAILING LIST ADMINISTRATION
Bob Ross reported that everything is working normally. A previous glitch, involving calls for papers not being sent out over the eda.org reflector, has been fixed.

MODEL LIBRARY UPDATE
No update.

PRESS UPDATE
None.

MISCELLANY/ANNOUNCEMENTS

None.

OPENS FOR NEW ISSUES
None.

INTERNATIONAL/EXTERNAL PROGRESS
- DASC
Michael Mirmak reported that a DASC meeting will be held at DAC on June 30, from 1 – 2 PM US Pacific time. Details will be announced on the DASC reflector. Invitations to the IBIS Summit have been sent to the DASC board. The DASC file and e-mail archive may be found at:

    http://www.dasc.org/

- P1735 Encryption
Syed Huq reported that the encryption group has developed and tested a digital envelope for encryption that works with both Cadence and Mentor Graphics products. The model used was HDL, but issues remain related to RSA padding, session keys and other issues. Syed has informed the committee about the interest of the IBIS community. The IEEE Study Group on Encryption web reflector archives are found at:

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

-Conferences
The Electrical Performance of Electronic Packaging and Systems (EPEPS 2009) is October 19-21, 2009 at the Embassy Suites in Portland, OR. This is a major meeting for SI people from universities and industry. An announcement has been distributed to the SI-List.

    http://www.epep.org/

The 7th International Workshop on Electromagnetic Compatibility of Integrated Circuits (EMC COMPO 2009) is November 17-20, 2009 in Toulouse, France.

    http://www.emccompo.org

TECHAMERICA STATUS
Michael Mirmak noted that no new information from TechAmerica has been received. We will not have a TechAmerica update at DAC due to budgetary reasons. We will plan on this for the DesignCon summit early next year.

IEC APPROVAL ACTIVITIES
No update. Randy was given an AR to update the IBIS Open Forum on the status of the logo.

SUMMIT STATUS

-DAC Planning

DAC is scheduled for July 26-31, 2009 in San Francisco. The IBIS summit is scheduled for Tuesday, July 28 in the Westin San Francisco Market Street. Sponsorship is welcome. Elections will also be held at this meeting. Participants were asked to let the board know if they would be interested in an officer position. The fourth call for papers has been sent out, and the agenda will be distributed on the 21st. John Angulo and Mentor Graphics have helped with the room arrangements and have confirmed that we still have a room reserved, the Franciscan I. Participants were asked to send a note to Syed Huq if they were planning to attend or would like to give a presentation. The membership rolls will be updated after this meeting, so membership renewals are critically important. Bob Ross noted that DAC had changed its pricing to allow a free attendance at the exhibition on Monday.

-China Summit Planning

Michael Mirmak noted that a tentative date had been decided for the IBIS meeting: Wednesday, November 4 at the Four Points Hotel in the Pudong district. Co-sponsors include Huawei Technologies, Agilent Technologies, Ansoft, Cadence Design, Cybernet Systems, Intel, Mentor Graphics, SiSoft, Sigrity, Synopsys, ZTE Corporation and others to be determined.

-Japan Summit Planning

Michael Mirmak stated that Friday, November 6 had been requested from JEITA as the date for the event. This event will be held at the JEITA headquarters. Co-sponsors include Japan Electronics and Information Technology Industries Association (JEITA) and others to be determined.

It is unlikely we will host any other Asian events this year, such as in Taiwan.

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 prepared to issue an update of the Quality Specification. A final review is in progress, with the revision number being considered as 2.0 instead of 1.1. A summary of the group's progress has been presented to Motorola and will be delivered at the DAC IBIS Summit.   The group is continuing weekly meetings at 8:00 AM PST.

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

> http://www.eda-stds.org/ibis/quality_wip/

IBIS MODEL REVIEW TASK GROUP

No update.

ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported that the group is making progress preparing an IBIS Interconnect SPICE document for the IBIS Open Forum. A draft presentation is being reviewed for delivery at the DAC Summit. In addition, a few changes to the IBIS-AMI specification are being discussed, particularly in light of the IBISCHK5 parser developer's comments.

Task group material can be found at:

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

AD HOC TASK GROUPS (INTERCONNECT)

Michael Mirmak reported that the group is reviewing proposals regarding treatment of sparse matrices for inclusion in a future revision of Touchstone. Bob Ross noted that a pole-zero format is also of interest to the group.

Task group material can be found at:

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

NEW ISSUES

None.

IBISCHK5 PARSER STATUS

Michael Mirmak reported that comments continue to be received from the developer, and at least one test executable has been received. At present, only a few minor issues remain to be resolved, including a list of checks on the keywords [ISSO_PU], [ISSO_PD] and [Composite Current]. Bob Ross requested that the developer ensure that test executables do not report the token database in its entirety and that a "-ami" flag be mentioned in the help statement.

IBISCHK4 BUG STATUS

Arpad Muranyi submitted BUG103, regarding the ordering of [Driver Schedule] delays. The parser does not currently check for values that violate the table of delays in the specification and are therefore illegal. The bug was classified as "Moderate" in severity, of "Medium" priority and "Open."

Tim Coyle submitted BUG104, suggesting that [Test Data] and [Test Load] were hierarchically scoped within [Model] by the specification but were incorrectly treated as top-level keywords by the parser, which prohibits duplicated names for these keywords. The bug generated significant discussion.

Bob Ross suggested that the hierarchy theoretically allows multiple [Test Load]s for different models and conditions. Mike LaBonte proposed that [Test Load] be moved in the specification to the top level, with the name use prohibited. Bob Ross noted that [Test Load] is now checked

under [Model], not [Test Data]. He suggested that this is a specification change and requires a BIRD, though testing should be undertaken to confirm what the parser does in various situations, particularly in [Driver Schedule], where [Test Data] has the most relevance. Michael Mirmak proposed that this report be classified as "not a bug," with a BIRD to be generated to address the top-level hierarchy move. A bug report against the revised specification may still be necessary. No objections were raised.

The BUG report list is available at the link below:

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

ICMCHK1 BUG STATUS
All BUGs have been closed. No new BUGs have been filed.

TOUCHSTONE 2.0 STATUS
Michael Mirmak noted that the parser call for bids closed on June 30, 2009. Four bids have been received and are being considered by a parser bid committee. A developer is expected to be selected soon. Pricing and terms will be announced as available.

NEW ISSUES
Before closing the meeting, Michael Mirmak noted that this teleconference meeting was his last as IBIS Chair, as he will not be seeking re-election at the IBIS Summit at DAC. He thanked the participants for their support and assistance over the years and noted that the experience as chair has been very rewarding. He will continue to represent Intel and participate in IBIS meetings and activities in the future. Several participants, including Mike LaBonte, Arpad Muranyi and Bob Ross, expressed their good wishes and thanks.

NEXT MEETING
The next IBIS Summit will be held on July 28, 2009 at the Westin Market Street San Francisco Hotel during DAC. No teleconference will be available. The next IBIS Open Forum teleconference will be held August 7, 2009 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. The BUG Report Form resides along with reported BUGs at:
>
> http://www.eda.org/ibis/bugs/ibischk/
> http://www.eda.org/ibis/bugs/ibischk/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

Other trademarks, brands and names are the property of their respective owners.

IBIS CURRENT MEMBER VOTING STATUS

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	May 15, 2009	June 5, 2009	June 26, 2009	July 17, 2009
Actel	Producer	Inactive				
Advanced Micro Devices	Producer	Inactive				
Agilent Technologies	User	Inactive				
Ansoft	User	Inactive				
Apple Computer	User	Inactive				
Applied Simulation Technology	User	Inactive				
ARM	Producer	Inactive				
Cadence Design Systems	User	Active	√	√		
Cisco Systems	User	Active	√	√	√	√
Ericsson	Producer	Active		√		
Freescale	Producer	Inactive				
Green Streak Programs	General Interest	Inactive			√	
Hitachi ULSI Systems	Producer	Inactive				
Huawei	User	Inactive				√
IBM	Producer	Active	√		√	
Infineon Technologies AG	Producer	Inactive				
Intel Corp.	Producer	Active	√	√	√	√
IO Methodology	User	Inactive				√
LSI	Producer	Active	√	√	√	√
Marvell Semiconductor	Producer	Inactive				
Mentor Graphics	User	Active		√	√	√
Micron Technology	Producer	Active	√	√	√	
Nokia Siemens Networks	Producer	Active		√	√	√
Samtec	Producer	Inactive				
Signal Integrity Software	User	Active	√	√	√	√
Sigrity	User	Inactive				
Synopsys	User	Inactive				
Teraspeed Consulting	General Interest	Active	√	√	√	√
Texas Instruments	Producer	Inactive				
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 GEIA 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.