IBIS Open Forum Minutes

Meeting Date: **October 30, 2009**

VOTING MEMBERS AND 2009 PARTICIPANTS

Actel	(Prabhu Mohan)
Agilent	Brian Andresen, Radek Biernacki, Saliou Dieye, Yutao Hu, Fangyi Rao
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*
Green Streak Programs	Lynne Green
Huawei Technologies	Xiaoqing Dong, Chunxing Huang, Guan Tao
Hitachi ULSI Systems	(Kazuyoshi Shoji)
IBM	Adge Hawes*
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Myoung J. Choi, Michael Mirmak, Vishram Pandit, Jon Powell, Sirisha Prayaga
IO Methodology	Li (Kathy) Chen, Lance Wang, Zhi (Benny) Yan
LSI	Brian Burdick*
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	Brad Brim, Sam Chitwood
Synopsys	Ted Mido
Teraspeed Consulting Group	Bob Ross*
Toshiba	(Yasumasa Kondo)
Xilinx	[David Banas]
ZTE	(Ying Xiong)
Zuken	Michael Schaeder, Ralf Bruening

OTHER PARTICIPANTS IN 2009

AET	Mikio Kiyono
Altera	Hui Fu

Apache	Yu Lin
ATE	Nob Tanak, Kenny Suga
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
Freescale	Jon Burnett, Om Mandhama
ICT Solutions	Steven Wong
IdemWorks	Michelangelo Bandinu
Juniper	Kevin Ko
Kineret Design	Ricardo Teliuteuesh
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
TechAmerica (GEIA)	(Chris Denham)
Texas Instruments	Pavani Jella
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	Meeting Number	Meeting Password
November 4, 2009	IBIS China Summit (China)	No teleconference
November 6, 2009	IBIS Japan Summit (Japan)	No teleconference
November 20, 2009	208 910 728	IBIS

For teleconference dial-in information, use the password at the following website:
https://cisco.webex.com/cisco/j.php?J=208910728

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 or ICM 1.1 specifications. No patents were declared.

MEMBERSHIP UPDATE AND TREASURER'S REPORT

Bob Ross reported that Huawei Technologies is now an official member again. We are at 30 paid members. There may be one more member pending.

REVIEW OF MINUTES AND ARS

Bob Ross called for comments regarding the minutes of the October 9, 2009 IBIS Open Forum teleconference. Randy Wolff mentioned that Eckhard Lenski requested the reference to Nokia in the Touchstone parser license vote tally be changed to Nokia Siemens Networks. Nokia is not actually a member of the IBIS Open Forum. The minutes were approved with the noted change.

WEB PAGE UPDATES

Syed Huq reported that there have been a few changes. He changed the IBIS Committee name on the front page to the IBIS Open Forum. He removed one former member from the poster page and updated Synopsys on the roster page. He is putting the DesignCon logo on the events page. Randy Wolff mentioned changing some references from GEIA to TechAmerica on several web pages.

MAILING LIST ADMINISTRATION

Mike LaBonte reported that there was one mailing list addition recently. He hasn’t been seeing notifications of any emails going out to the list and bouncing. He plans to contact one of the eda.org system administrators to enquire further.

MODEL LIBRARY UPDATE

Anders Ekholm reported that the library updates and new logo are uploaded to the website.

PRESS UPDATE

None.

MISCELLANY/ANNOUNCEMENTS

None.

OPENS FOR NEW ISSUES

Bob Ross noted that a new BUG report came in from Mike LaBonte. We will discuss this in the IBISCHK4 BUG report section.

INTERNATIONAL/EXTERNAL ACTIVITIES

- DASC

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

http://www.dasc.org/

- P1735 Encryption

Syed Huq noted that several more companies have joined the encryption forum. 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) was October 19-21, 2009 at the Embassy Suites in Portland, OR. Bob Ross reported that there were a couple of tutorials from IBIS members. IBIS AMI and Touchstone 2.0 were mentioned. There were lots of interconnect and stacked die issues discussed. A paper was presented on equation- based IBIS modeling. It was by Ting Zhu and Paul D. Franzon of North Carolina State University entitled "Application of Surrogate Modeling to Generate Compact and PVT-sensitive IBIS Models." There was about 25% less attendance than normal.

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. Lance Wang of IO Methodology is presenting a paper entitled "2-Pin-Pair Oriented Extraction Method for True Differential Pair Buffer Behavioral Modeling."

http://www.emccompo.org

TECHAMERICA STATUS

Bob Ross noted that he talked to Chris Denham recently. GEIA no longer exists, and Chris is now Vice President in charge of Systems, Standards & Technology Council (SSTC) for all of TechAmerica. IBIS is positioned under SSTC. We need to update GEIA references in our documents.

IEC APPROVAL ACTIVITIES

Randy Wolff reported that the IEC meeting was September 28-30, 2009. He has not heard any update from Victor Berman on the status of IEC approval of the IBIS 4.2 specification.

SUMMIT STATUS

-China Summit Planning

The meeting is scheduled for Wednesday, November 4 at the Four Points Hotel in Shanghai in the Pudong district. Bob Ross reported that the agenda was sent out last week. There is a full program with 12 presentations. There will be 5-6 vendor tables. Bob estimated about 110 people will attend. Lance Wang will help with translation and questions. Co-sponsors include Huawei Technologies, Agilent Technologies, Ansoft, Cadence Design, Cybernet Systems, Intel, IO Methodology, Mentor Graphics, SiSoft, Sigrity, Synopsys and ZTE Corporation.

-Japan Summit Planning

The meeting is scheduled for Friday, November 6 at the JEITA headquarters from 2:00 PM to 6:00 PM. Bob Ross noted that 10 presentations are scheduled. Over 30 people are signed up so far. Co-sponsors include Japan Electronics and Information Technology Industries Association (JEITA), ATE (Sigrity Distributor), Cadence, Zuken and others to be determined.

-DesignCon Planning

Bob Ross reported that the most likely day for the meeting is Thursday, February 4, 2010. Bob has 3-5 presentations already penciled in. The agreement is signed between IEC and IBIS. We have not heard anything from IEC about room arrangements. Bob is inclined not to have a booth. The booth is complimentary, but there are a lot of extra fees, probably about $400 worth.

-European Summit Planning

Bob Ross reported that the planning group is strongly considering holding the summit at the SPI conference in May in Hiedesheim, Germany. Eckhard Lenski noted that he prefers holding the meeting at the SPI Conference instead of DATE.

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 IBIS Quality Specification Version 2.0 is up for a vote today. At the last meeting the group looked over new IQ checks to see which ones would make good candidates for incorporation into the IBISCHK parser. They submitted a BUG today. The next meeting is November 10. They will be going over a spreadsheet style IQ checklist. Then, they plan to talk about correlation and a possible update to the IQ handbook.

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

Walter Katz reported that the group is looking at flow options for IBIS AMI. They settled on a new flow and controlling parameters for an update in IBIS 5.1. Arpad Muranyi is working on flow charts and documentation. Walter plans to introduce a BIRD with the AMI changes for discussion in the task group.

Task group material can be found at:

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

AD HOC TASK GROUPS (INTERCONNECT)

Bob Ross reported that there have been no meetings recently due to absences. The group is dealing with the sparse matrix mapping syntax and technical description. Walter Katz added that the group is discussing what to classify as errors and warnings in the parser.

Task group material can be found at:

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

NEW ISSUES

None.

IBIS QUALITY SPECIFICATION VERSION 2.0

Mike LaBonte stated that many original checks in the IQ specification were already checked with the IBISCHK parser. This revision to the specification adds checks beyond what the IBISCHK parser does. The new specification defines quality levels 0-4. The new document is easier to follow. The new levels also change the way of indicating levels of correlation of the model to measurement and simulation. Mike motioned to approve the document as a formal IBIS Quality specification. The vote passed with the following vote tally:

Cadence – yes
Cisco – yes

Ericsson – yes
IBM – yes
LSI – yes
Micron – yes
Nokia Siemens Networks – yes
SiSoft – yes
Teraspeed – yes

The document can be downloaded from:

http://www.eda-stds.org/ibis/quality_wip/iq_ver_2_0.pdf

IBISCHK5 PARSER STATUS

Bob Ross reported that the IBISCHK5 parser was officially released yesterday for 6 different operating systems. Several source code license purchases are pending. Two new flags are added with this update: –ami and –numbered. Some AMI models may need to be updated to conform to the checks in the new parser.

The new parser may be downloaded from:

http://www.eda.org/pub/ibis/ibischk5

TSCHK2 PARSER STATUS

Bob Ross noted that he received a report from the developer at Agilent. The developer is finished with an alpha release, and he should give the first beta version to the committee in a week or so. A license for the parser will be available for $1000.

IBISCHK4 BUG STATUS

Bob Ross noted that there are several open BUGs that will need to be fixed in the future.

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.

NEW ISSUES

(Bob Ross moved this discussion to after the brief ICMCHK1 Bug Status report.) Mike LaBonte submitted an IBISCHK BUG on behalf of the IBIS Quality task group this morning. It requests that the [Ramp] dV values be checked against values calculated from combined I-V tables and a caution be issued for deviations of more than 5%. This check would also indirectly indicate a potential issue with the dt value of [Ramp]. Issuing a caution instead of a warning makes it so older models won't have new warnings to explain. Mike also asked for someone to double check the values he put in the BUG report in the [Ramp] example.

The BUG was classified as BUG107 with severity Enhancement, priority Low and status Open. The title of the BUG is "Checking for [Ramp] dV_r and dV_f."

NEXT MEETING

The IBIS China summit will be held November 4, 2009. The IBIS Japan summit will be held November 6, 2009. No teleconferences will be available. The next IBIS Open Forum teleconference will be held November 20, 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

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IBIS CURRENT MEMBER VOTING STATUS

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	August 28, 2009	September 18, 2009	October 9, 2009	October 30, 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	√	√	√	√
Green Streak Programs	General Interest	Inactive				
Huawei Technologies	Producer	Inactive				
Hitachi ULSI Systems	Producer	Inactive				
IBM	Producer	Inactive				√
Infineon Technologies AG	Producer	Inactive				
Intel Corp.	Producer	Active	√	√	√	
IO Methodology	User	Active	√	√	√	
LSI	Producer	Active		√	√	√
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	√	√	√	√
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.