

EIA IBIS Open Forum

Meeting Date: **October 10, 2008**

VOTING MEMBERS AND 2008 PARTICIPANTS

Actel	(Prabhu Mohan)
Agilent	Sanjeev Gupta, Radek Biernacki, Amolak Badesha Fangyi Rao, [Ian Dodd], Yutao Hu, Vuk Borich Nobutaka Arai, Ludwig Eichinger
AMD	Nam Nguyen*
Ansoft Corporation	Steve Pytel, Ricardo Teliuteuesh, Dan Dvorscak
Apple Computer	(Bill Cornelius)
Applied Simulation Technology	(Fred Balistreri)
ARM	(Nirav Patel)
Cadence Design Systems	Terry Jernberg, Hemant Shah, Ambrish Varma [C. Kumar], Brad Griffin, Zhen Mu
Cisco Systems	Syed Huq*, Mike LaBonte*, AbdulRahman (Abbey) Rafiq Huyen Pham, Emily Yao, Susmita Mutsuddy John Fisher, Paul Ruddy, Jun Li, Jianmin Zhang Luis Boluna, Kelvin Qiu, Jane Lim, Ilyoung Park Rick Brooks, Chris Padilla, Ehsan Kabir
Ericsson	Anders Ekholm*
Freescale	Jon Burnett
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	Kazuyoshi Shoji
Huawei Technologies	Tao Guan, Xiaoqing Dong
IBM	Adge Hawes*
Infineon Technologies AG	Christian Sporrer
Intel Corporation	Michael Mirmak, Rich Mellitz, Wei-hsing Huang Vishram Pandit
LSI	[Frank Gasparik], Brian Burdick, [Kim Helliwell]
Marvell Semiconductor	(Itzik Peleg)
Mentor Graphics	Arpad Muranyi*, John Angulo
Micron Technology	Randy Wolff*
Nokia Siemens Networks GmbH	Eckhard Lenski*, Klaus Huebner, Katja Koller
Samtec	Jim Nadolny, Justin McCalister
Signal Integrity Software	Mike Steinberger, Walter Katz*, Todd Westerhoff* Doug Burns, Mike Mayer, Barry Katz
Sigrity	Sam Chitwood, Brad Brim, Ben Franklin Kristopher Stytt, Raymond Chen
Synopsys	Ted Mido
Teraspeed Consulting Group	Bob Ross*, Tom Dagostino, Al Neves
Texas Instruments	Richard Ward, Pavani Jella
Toshiba	Yasumasa Kondo, Noriyasu Yoshikawa
Xilinx	David Banas, Ajay Shah, Suzanne Yiu

Zuken
ZTE

Mustansir Fanaswalla
Michael Schaefer, Ralf Bruening
(Ying Xiong)

OTHER PARTICIPANTS IN 2008

Aeroflex Metelics
Aica Kogyo
Altera
Avago Technologies
Bayside Design
Celestica
ECL Advantage
EFM
Elma Bustronic
Exar
Flextronics
GEIA
Golden Bridge Networks
ICT Solutions
Interface Technologies
IO Methodology
JEITA
Magma DA
NEC
NetLogic Microsystems
North Carolina State University
Nokia
Nuova Systems
Prentice Hall
Physware
Politecnio di Torino
Qimonda AG
Siemens AG
Simberian
SimLab Software GmbH
Tektronix
TietoEnator GmbH
Tyco Electronics
Vertical Circuits
Xsigo Systems
Independent

David Nguyen
Akihiro Tanaka
Ravindra Gali, Jing Wu, John Oh, Hui Fu
Minh Quach, Sari Tocco
Elliot Nahas, Kevin Roselle
Ihsan Erdin
Thomas Iddings
Ekkehard Miersch
Michael Munroe
Helen Nguyen
Hasnain Syed
(Chris Denham)
Saman Sadigh
Steven Wong
Dan Waterloo
Lance Wang*, Zhi (Benny) Yan, Li (Kathy) Chen
Atsushi Ishikawa
Anand Ramalingam
Takeshi Watanabe
Eric Hsu
Paul Franzon
Ali Arsian
Zhiping Yang
Bernard Goodwin
Marc Kowalski
Igor Stievano
Md Morshed Alam Heial, Suhas Jawale
Manfred Maurer, Annika Woehner
Yuriy Shlepnev
Heiko Grubrich
Steve Corey
Heinz-Hartmut Ibowski
Chad Morgan
Mark Egbers
Robert Bada
Guy de Burgh, Ardy Forouhar, Dave Galloi
Kazuhiko Kusunoki

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
October 31, 2008	1-866-432-9903	121441980
November 11, 2008 - Asian IBIS Summit - Shanghai China - No Teleconference		
November 14, 2008 - Asian IBIS Summit - Tokyo, Japan - No Teleconference		

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 1 to attend the meeting, then 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 members. Michael Mirmak was unable to attend the meeting, so Syed Huq ran the meeting.

CALL FOR PATENTS

Syed Huq called for any patents or pending patents related to the IBIS Version 3.2, 4.0, 4.1, 4.2, or ICM 1.1 specifications. No patents were declared.

MEMBERSHIP UPDATE AND TREASURER'S REPORT

Bob Ross reported that the latest GEIA report shows we are in the black financially and will have extra money at the end of the year. We are going through a budget process for next year.

REVIEW OF MINUTES AND ARS

Syed Huq called for comments regarding the minutes of the September 19, 2008 IBIS Open Forum teleconference. The minutes were approved without changes.

WEB PAGE UPDATES

Syed Huq reported that the roster page was updated with information for Apple and Tektronix.

MAILING LIST ADMINISTRATION

Bob Ross reported that everything is working normally.

MODEL LIBRARY UPDATE

No update.

PRESS UPDATE

None.

MISCELLANY/ANNOUNCEMENTS

No update.

OPENS FOR NEW ISSUES

None.

INTERNATIONAL/EXTERNAL PROGRESS

- DASC

No update.

The DASC file and e-mail archive may be found at:

<http://www.dasc.org/>

- P1735 Encryption

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

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

- GEIA/ITAA Issues

No issues to report.

IEC APPROVAL ACTIVITIES

Randy Wolff reported that no progress was made since the last meeting. He summarized previous activities. The full IBIS board met with Victor Berman of DASC and TC93 and learned about the process necessary to move IBIS 4.2 towards IEC approval. Discussion in the last meeting was about whether IEC standardization would provide anything useful to IBIS. Bob Ross suggested that the committee continue discussion with Victor Berman. Randy took the AR to contact Victor again to discuss further options.

SUMMIT STATUS

- Asian IBIS Summit (China) Planning

The China summit will be held November 11, 2008 in Shanghai, at the Shanghai Mart Convention Center. The China summit contacts are Bob Ross and Lance Wang. Huawei Technologies, Agilent Technologies, Ansoft, Cadence Design, Cybernet Systems, Intel, Mentor Graphics, SiSoft, Sigrity, Synopsys and ZTE Corporation are the official sponsors. Bob Ross noted that there might be longer breaks this year and the vendor tables will be in the lunch area. About 70 people have signed up so far with many unaccounted for. Presentations must be in by Monday to facilitate booklet printing. The agenda will be finalized once all papers are in Monday. There are many papers on SerDes and AMI modeling as well as Power Integrity and SSN. Lance Wang will do translations during the presentations. Finances are in good shape. The next announcement will include an agenda.

- Asian IBIS Summit (Japan) Planning

The Japan summit will be held in Tokyo at JEITA headquarters November 14, 2008. Bob Ross or Kazuyoshi Shoji should be contacted if planning to attend the Japan summit. Official sponsors are JEITA, Agilent Technologies, Ansoft, ATE (Sigrity), Cadence Design Systems, Cybernet Systems, Fujitsu and Zuken. The full agenda will be published a week before the event. Bob Ross noted that the paper deadline is one week before the event. Another announcement will go out soon.

- DesignCon Planning

The DesignCon event is scheduled for February 2-5, 2009 at the Santa Clara Convention Center in Santa Clara, California. Thursday, February 5, 2009 is tentatively scheduled for the summit. Michael Mirmak will be handling contract arrangements.

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 task group is continuing to review the IBIS Quality 1.1 draft. They have finished checks on waveforms and are reviewing the section on [Ramp] checks. They also need to discuss further items such as correlation issues. The group may release the 1.1 specification by the end of the year.

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 heard back from Synopsys regarding the request to use

some Synopsys HSPICE documentation as a basis for an IBIS Spice language. The response was favorable and has been forwarded to Synopsys' legal department. The group discussed in the last two meetings a presentation from Michael Mirmak on improving C_comp modeling by making it frequency dependent. They also discussed the EMD proposal and EBD updates in previous meetings.

Task group material can be found at:

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

AD HOC TASK GROUPS (INTERCONNECT)

Bob Ross reported that the group closed out the mixed mode discussion and is looking at other proposals on [Interconnect Port Groups] and other requests for improvements and changes to Touchstone. Walter Katz, Michael Mirmak and Bob are tasked to look over proposals and will narrow them down to a few critical issues in order to advance Touchstone approval.

Task group material can be found at:

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

NEW ISSUES

None.

BIRD111.1: EXTENDED USAGE OF EXTERNAL SERIES COMPONENTS IN EBDS

Bob Ross noted that he wants to review the BIRD further before putting it up for a vote. This includes testing EBD models in the current parser.

IBISCHK5 PARSER STATUS

Bob Ross reported that a parser bid review committee has been formed, but the group has not met yet. The group needs to complete a proposal and distribute it to solicit bids from potential parser developers. Syed Huq noted that IBIS members will be approached for early purchases of parser licenses to help support development.

IBISCHK4 BUG STATUS

Bob Ross reported that a new BUG was submitted this morning to be processed. The BUG concerns [Model Selector]. If a [Model Selector] exists, but its name is not referenced in the IBIS file, no warnings are given by the parser. The parser does issue warnings on [Model]s that are not used. This would be an informational warning only.

Syed Huq asked if BUGs are not severe, would they be fixed in IBISCHK4 or rolled over into IBISCHK5. Bob responded that normally they would be put into the next release. However, IBISCHK5 may not include bug fixes until a future release. We could do another release of

IBISCHK4 if desired to fix BUGs.

Anders Ekholm asked if it is time to introduce error and warning messages with numbers and also to fix misspellings. Syed asked that Anders document this idea. Arpad Muranyi noted that when development of the IBISCHK4.1 parser began, the group discussed programming style. Programming code needed to be updated to a more current style. Is this the time to do a full update of the parser or just add on new code and expand upon existing code? Bob noted that if the developer can start with a fresh code base, it would be considered as part of a bid proposal. However, the code needs to be delivered in a reasonable amount of time. Arpad expressed concern that it may be a technical necessity to start over fresh in the code. Mike LaBonte noted that Anders was only asking for small changes in the format of printed messages. Mike agrees that the way messages come out now, if you need to find any detail about the errors, it is very difficult. Error numbers that reference sections of the code would be very helpful. These could be prefixed with the letter "E" for errors, "W" for warnings, etc. This could also be advantageous when someone is listing an error on the reflector and asking for help.

The BUG report list is available at the link below:

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

ICMCHK1 BUG STATUS

Bob Ross reported that there is no parser writer to update the test case for the parser release. This is not a high priority at this time.

NEW ISSUES

None.

NEXT MEETING

The next IBIS Open Forum teleconference will be held October 31, 2008 from 8:00 AM to 10:00 AM US Pacific 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/bugspl.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>

All eda.org documents can be accessed using a mirror:

<http://www.ibis-information.org>

Note that the "/ibis" text should be removed from directory names when this URL mirror is used.
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GEIA STANDARDS BALLOT VOTING STATUS

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	August 8, 2008	August 29, 2008	September 19, 2008	October 10, 2008
Actel	Producer	Inactive				
Advanced Micro Devices	Producer	Active	√	√	√	√
Agilent Technologies	User	Inactive				
Ansoft	User	Inactive				
Apple Computer	User	Inactive				
Applied Simulation Technology	User	Inactive				
ARM	Producer	Inactive				
Cadence Design Systems	User	Inactive	√	√		
Cisco Systems	User	Active	√	√	√	√
Ericsson	Producer	Inactive		√		√
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	√	√	√	
LSI	Producer	Inactive	√	√		
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	Active	√	√	√	
Toshiba	Producer	Inactive				
Xilinx	Producer	Active		√	√	
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:

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- 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.