EIA IBIS Open Forum Minutes

Meeting Date: **June 22, 2007**

GEIA STANDARDS BALLOT VOTING STATUS
See last page of the minutes for the voting status of all member companies.

VOTING MEMBERS AND 2007 PARTICIPANTS

Agilent	Ian Dodd*, Radek Biernacki, Saliou Dieye, Riccardo Giacometti
AMD	Nam Nguyen, Tadashi Arai
Applied Simulation Technology	(Fred Balistreri)
Apple Computer	(Bill Cornelius)
Cadence Design Systems	[Lance Wang], C. Kumar, Hemant Shah, Patrick dos Santos, Shangli Wu*
Cisco Systems	Syed Huq, Tram Bui, AbdulRahman Rafiq, Huyen Pham, Darja Padilla, Mike LaBonte, Paul Ruddy, Gurpreet Hundal, Luis Boluna, Ehsan Kabir, Jehyoung Lee, Susmita Mutsuddy, Eddie Wu
Ericsson	Anders Ekholm, Ole Segtum
Freescale	Jon Burnett
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	Kazuyoshi Shoji
Intel Corporation	Michael Mirmak*, Arpad Muranyi*
IO Methodology	Lance Wang*
LSI	Frank Gasparik*, Kim Helliwell, Dinh Tran, Praveen Soora
Mentor Graphics	John Angulo*, [Ian Dodd], Eric Rongere, Stephane Rousseau, Bill Hargin, Patrick Carrier
Micron Technology	Randy Wolff*, Pavani Jella*
Samtec	(Corey Kimble)
Signal Integrity Software	Barry Katz, Douglas Burns, Mike Steinberger, Walter Katz, Todd Westerhoff
Sigrity	Sam Chitwood, Sandy Dung
STMicroelectronics	Antonio Girardi, Giacomo Bernardi, Roberto Izzi
Synopsys	Ted Mido
Teraspeed Consulting Group	Bob Ross*, Tom Dagostino
Texas Instruments	Otis Gorley, Richard Ward, Bonnie Baker
Toshiba	(Yasumasa Kondo)
Xilinx	Bruce Bandeli, David Banas*
ZTE	(Shunlin Zhu)
Zuken	Michael Schaeder, Ralf Bruening, John Berrie

OTHER PARTICIPANTS IN 2007

74ze Engineering	Linc Jepson
Agere	(Nirav Patel)
Altera	Hui Liu, Zhe Lin, Ravindra Gali, Salman Jiva
Ansoft Corporation	(Michael Brenneman)
Apache Design Solutions	(Ji Zheng)
Applied Telisis, Inc. (ATI)	Vladimar Mandrusov
Cavium Networks	Johann Nittmann*
ChipX	Jay Hidy, Oren Dvir
Cybernet Systems	Kazuhiki Kusunoki
EFM	Ekkehard Miersch
Enterasys	Robert Haller
Extreme Networks	Kevin Ko
Fluent	(Chetan Desai)
Force10 Networks	Robert Badal
Free Electron Software	Al Davis
GEIA	(Chris Denham)
Hewlett Packard	Shafiq Rahman
Huawei Technologies	ChunXing Huang, Bob He
IBM	Michael Sorna, Adge Hawes
Infineon	Christian Sporrer
Integrated Circuit Systems (ICS)	(Dan Clementi)
JEITA	Atsushi Ishikawa
Juniper Networks	Raul Lozano
Leventhal Design	Roy Leventhal
Lynguent	Andrew Levy
National Institute of Applied Science (INSA)	Etienne Sicard
National Instruments	Lee Maixman
Netlogic	Eric Hsu
NEC Electronics Corporation	Takeshi Watanabe, Hock Seow, Huy Tran
NESA	Edward Sayre
Nokia Siemens Networks GmbH[1]	Eckhard Lenski*, Flavio Maggioni, Roberto Preatoni, Umberto Gatti, Massimo Ceppi
Northrop Grumman	Dusan Radosevic
Nuova Systems	Zhiping Yang, Lin Shen
NXP	H N Sudarshan
Optimal Corporation	Marc Kowalski
Panasonic	(Atsuji Ito)
Politecnico di Torino	Igor Stievano, Michelangelo Bandinu
Renesas Technology	Takuji Komeda
Samsung	Sang-Soo Park
Sedona International	Joe Socha

Siemens AG [1]	[Eckhard Lenski], Manfred Maurer
Silego	(Joe Froniewski)
Sun Microelectronics	Leon Yang
Tiburon Design Automation	Patirick Challacn
White Electronics Designs	John Perez
Xyratex	Paul Levin, Joseph Chan

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	Bridge #	Passcode
July 13, 2007	1-916-356-2663	3	529-2277

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, provide the bridge number and passcode at the automated prompts. If asked by an operator, please request to join the IBIS Open Forum hosted by Michael Mirmak. For international dial-in numbers, please contact Michael Mirmak.

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 Version 3.2, 4.0, 4.1, 4.2, or ICM 1.1 specifications. No patents were declared.

MEMBERSHIP UPDATE AND TREASURER'S REPORT
Michael Mirmak reported that we have two recent updates from GEIA. We have officially 24 members now. The budget is on the positive side. We have not received a full billing for the DAC summit yet. Bob Ross reported that the total is now 26 based on a new member IO Methodology and also a renewal that was just received. He expects that we will get over 30 members this year based on renewals in progress.

REVIEW OF MINUTES AND ARS

Michael Mirmak reviewed the minutes of the June 1, 2007 IBIS Open Forum teleconference and the June 5, 2007 IBIS Open Forum summit meeting. Bob Ross noted that ZTE should be listed in the members section in both sets of minutes. Also, ZTE was incorrectly listed both as a voting member and also as an "other participant" in the July 5 minutes. The minutes were approved with the noted changes.

WEB PAGE UPDATES
Michael Mirmak reported that the listing of DATE summit presentations on the website was fixed. Also, the DAC presentations are now listed.

MAILING LIST ADMINISTRATION
Bob Ross reported that the list is running normally.

NEW MODELS AVAILABLE, LIBRARY UPDATE
Lance Wang has completed requests from Agilent to update some links.

PRESS UPDATE
None.

MISCELLANY/ANNOUNCEMENTS
None.

OPENS FOR NEW ISSUES
Bob Ross requested a discussion of BUG98 and the caution flag, both related to the parser.

INTERNATIONAL/EXTERNAL PROGRESS
Several upcoming conferences of interest to IBIS members include:

SSP, the IEEE Statistical Signal Processing Workshop held August 26-29, 2007 in Madison, WI. The deadline for paper submissions has passed. More information can be found at:

   http://ssp07.org/

EMC 2007, the IEEE International Symposium on Electromagnetic Compatibility held July 8-13, 2007 in Honolulu, Hawaii. More information can be found at:

   http://www.emc2007.org/index.htm

Bob Ross noted that presentations from the SPI conference are uploaded on the website:

IEC APPROVAL ACTIVITIES
Michael Mirmak mentioned that he received a note from Victor Berman, who is interested in a teleconference with the board or participating in an open forum meeting to discuss how DASC and IBIS can work together.

SUMMITS

- DAC Summary
DAC was held June 4-8, 2007 in San Diego, California. Tuesday, June 5 was the IBIS summit. Michael Mirmak summarized that 25 people from 19 organizations attended. There were good discussions, with quality presentations. There were a number of topics related to the quality of IBIS models, as well as ATM, Spice, and interconnect modeling activities.

- Asian IBIS Summit China Planning
Tuesday, September 11 will be the China meeting in Beijing. The Park Plaza Science Park hotel is reserved. Bob Ross and Lance Wang are contacts for signing up. The first call for papers for went out, and the second announcement will go out next week. Official sponsors so far of the China summit are Huawei Technologies, Agilent, Ansoft, Cadence, Intel, Mentor Graphics, Sigrity, SiSoft, Synopsys and ZTE Corporation. Bob mentioned that he is getting some commitments for presentations already.

- Asian IBIS Summit Japan Planning
Friday, September 14 will be the Tokyo meeting at JEITA headquarters. Two new sponsors are ATE Service Corporation and Cybernet Systems. The other official sponsor of the Japan summit is JEITA with others to be determined. The first announcement will go out in about a week. Bob is the main contact for this event.

Sponsorship opportunities for the Asian IBIS summits are available, with sponsors receiving free mentions in the minutes, agenda, and other announcements. Contact the IBIS Board for further details.

Michael Mirmak mentioned that he was asked from some companies in Taiwan to potentially hold a summit in Taiwan, Singapore or Malaysia. It is difficult for companies in Taiwan to get visas to attend the China summit. Michael plans to discuss this in more detail at the next meeting. Bob mentioned that any extra Asian IBIS summit would need to be scheduled within the same timeframe as the other two established summits.

IBIS QUALITY TASK GROUP
David Banas reported that they finished discussing through check 3.4.3 of the Quality report. They will be discussing thresholds at the next meeting.

The link to the quality task group checklist is at:

IBIS MODEL REVIEW TASK GROUP
No update.

ADVANCED TECHNOLOGY MODELING TASK GROUP
Arpad Muranyi reported that there have been no meetings since the summit. The BIRD drafting group has continued meeting and will have an update to present at the meeting next week.

Task group material can be found at:

AD HOC TASK GROUPS (INTERCONNECT)
Michael Mirmak reported that the group finished discussing Touchstone and will be discussing IIRD9 in the next two meetings, then moving onto IBIS to ICM links after that.

Task group material including the Touchstone2 draft specification can be found at:

NEW ISSUES
None.

IBISCHK4 BUG STATUS
Bob Ross got a release of the 4.2.2 parser from Atul Agarwal and distributed to the board and a few other people to review. He is waiting for some quick feedback on the DOS executable. Randy Wolff mentioned that he had checked a DDR3 model with the parser, and it appeared to be checking the [Receiver Thresholds] and combinations of I-V curve tables properly.

Bob mentioned the new caution flag option of the parser. Caution messages would be issued with this option, but currently the parser will not issue cautions unless the flag is specified. At least one EDA vendor has said that they would like to have this as the default so that the caution messages can be added as an option in the GUI. Michael Mirmak said that we need to come up longer term with a parser specification to describe changes such as this and why certain changes are made between releases of the parser. Michael will schedule a more lengthy discussion in the next meeting. Members were asked if they had any issues with beginning parser release as-is. We will begin the release process soon.

Bob reported BUG98. Zuken found two coding mistakes, and the first one was fixed. The second one relates to use of the stack in the C code, and the recommendation is to change stack pointers. BUG98 will be classified as annoying severity, low priority, and open.

ICMCHK1 BUG STATUS
No update.

BIRD98.1: GATE MODULATION EFFECT (TABLE MODEL)
Bob Ross is planning to work with STMicroelectronics on the next revision. He did issue a chopped version to STM where he rearranged paragraphs to group related information together and remove redundant information. He also updated the data tables to fix pullup table referencing to be VDD relative. He has also asked for clarification of some other parameters.

PROPOSED TOUCHSTONE2 SPECIFICATION INTRODUCTION
Michael Mirmak introduced a proposal to update the Touchstone specification to version 2.0 without invalidating any version 1.0 files. Version 2.0 adds keywords in IBIS style to remove limits on the number of ports as well as support different reference impedances for different ports. There was discussion about having complex reference impedances, but this was rejected. There are some legal issues still to deal with related to the Touchstone name. Arpad Muranyi asked about support from vendors for the new specification. Michael said that support for developing the new specification has been good, especially from Agilent, the original developer of Touchstone. Michael also mentioned that we need to decide if developing a parser is necessary and/or desirable. Michael is bringing this specification to the Open Forum for further discussion leading into an approval vote when appropriate. The specification can be found at the following link:

http://www.eda.org/ibis/adhoc/interconnect/touchstone_spec2_draft8.pdf

NEW TECHNICAL ISSUES
None.

OPEN ISSUES
Bob Ross asked Michael Mirmak while traveling to Asia to confirm with several companies if membership payments have been sent and also to check on summit planning activities.

NEXT MEETING
The next IBIS Open Forum teleconference will be held July 13, 2007 from 8:00am to 10:00am 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-stds.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-stds.org
To join, change, or drop from either or both:
IBIS Open Forum Reflector (ibis@eda-stds.org)
IBIS Users' Group Reflector (ibis-users@eda-stds.org)
State your request.

ibis-info@eda-stds.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-stds.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-stds.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-stds.org
To report ibischk parser BUGs. The BUG Report Form resides along with reported BUGs at:

http://www.eda-stds.org/ibis/bugs/ibischk/
http://www.eda-stds.org/ibis/bugs/ibischk/bugform.txt

icm-bug@eda-stds.org
To report icmchk1 parser BUGs. The BUG Report Form resides along with reported BUGs at:

http://www.eda-stds.org/ibis/icm_bugs/
http://www.eda-stds.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-stds.org/ibis/bugs/s2ibis/bugs2i.txt
http://www.eda-stds.org/ibis/bugs/s2ibis2/bugs2i2.txt
http://www.eda-stds.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-stds.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.

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

GEIA STANDARDS BALLOT VOTING STATUS

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	May 11, 2007	June 1, 2007	June 5, 2007	June 22, 2007
Advanced Micro Devices	Producer	Inactive	√	√		
Agilent Technologies	User	Active			√	√
Apple Computer	User	Inactive				
Applied Simulation Technology	User	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			√	
Intel Corp.	Producer	Active	√	√	√	√
IO Methodology	User	Inactive				√
LSI Logic	Producer	Inactive				√
Mentor Graphics	User	Active	√	√	√	√
Micron Technology	Producer	Active	√	√		√
Samtec	Producer	Inactive				
Signal Integrity Software	User	Inactive			√	
Sigrity	User	Inactive			√	
STMicroelectronics	Producer	Inactive	√	√		
Synopsys	User	Inactive				
Teraspeed Consulting	General Interest	Active	√	√	√	√
Texas Instruments	Producer	Active		√	√	
Toshiba	Producer	Inactive				
Xilinx	Producer	Active			√	√
ZTE	User	Inactive				
Zuken GmbH	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.