ITAA IBIS Open Forum

Meeting Date: January 9, 2009

VOTING MEMBERS AND 2009 PARTICIPANTS

Actel (Prabhu Mohan) Agilent Technologies (Sanjeev Gupta) AMD (Jonathan Dowling) Ansoft Corporation (Eldon Staggs) Apple Computer (Matt Herndon) Applied Simulation Technology (Fred Balistreri) ARM (Nirav Patel) Cadence Design Systems (Terry Jernberg) **Cisco Systems** Syed Huq*, Mike LaBonte* Ericsson (Anders Ekholm) Freescale (Jon Burnett) **Green Streak Programs** (Lynne Green) Hitachi ULSI Systems (Kazuyoshi Shoji) Huawei Technologies (Jiang XiangZhong) IBM (Adge Hawes) Infineon Technologies AG (Christian Sporrer) Michael Mirmak* Intel Corporation LSI **Brian Burdick*** Marvell Semiconductor (Itzik Peleg) Mentor Graphics Arpad Muranyi* Randy Wolff* Micron Technology Nokia Siemens Networks GmbH Eckhard Lenski* Samtec (Corey Kimble) Signal Integrity Software (Barry Katz) Sigrity Sam Chitwood* Synopsys (Andy Tai) Teraspeed Consulting Group Bob Ross* **Texas Instruments** Pavani Jella* Toshiba (I.S. Corporation) (Yasumasa Kondo) Xilinx **David Banas*** Zuken (Michael Schaeder) ZTE (Ying Xiong)

OTHER PARTICIPANTS IN 2009

GEIA	(Chris Denham)
IO Methodology	Lance Wang*

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
January 30, 2009	1-866-432-9903	121782461
February 5, 2009	IBIS Summit at DesignCor	n; 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.

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 are starting the year with 32 paid members. We have more revenues than income for the year. We need to spend it by January 12 or we lose the extra money, about \$4500. We will discuss this later in the meeting.

REVIEW OF MINUTES AND ARS

Michael Mirmak called for comments regarding the minutes of the December 12, 2008 IBIS Open Forum teleconference. The minutes were approved without changes.

WEB PAGE UPDATES

Syed Huq reported that the events page was updated and he has a new request that has not been completed yet. Randy Wolff mentioned that ST Microelectronics is incorrectly listed with membership status on the roster page.

MAILING LIST ADMINISTRATION

Bob Ross reported that everything is working normally.

MODEL LIBRARY UPDATE

Lance Wang reported that he plans to do a scan of the library soon.

PRESS UPDATE

Bob Ross mentioned two press updates.

Colin Warwick of Agilent has a blog that wishes IBIS a happy 13th birthday and includes a guest post from Michael Mirmak. The blog may be found at:

http://signal-integrity-tips.com

Printed Circuit Design and Fab features an article by Dave Kohlmeier of Mentor entitled "Automating the DDRx Interface Verification Process." This article mentions IBIS models and can be found at the following link:

http://pcdandf.com/cms/cms/content/view/5650/95/

MISCELLANY/ANNOUNCEMENTS

No update.

OPENS FOR NEW ISSUES

None.

INTERNATIONAL/EXTERNAL PROGRESS

- DASC

Michael Mirmak reported that there was a meeting on December 18, 2008. He did not have an update on this meeting.

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

Michael Mirmak reported that we received notice that Chris Denham of GEIA will be unavailable

for several weeks following surgery.

As of January 1, 2009 the ITAA has merged with the AeA. This will effectively eliminate the GEIA name. We should know within a few weeks what our new parent organization will be named.

Bob Ross noted that there are two upcoming conferences that include Signal Integrity and Power Integrity topics. Information on these is below.

The 13th IEEE Workshop on Signals Propagation on Interconnects is May 12-15, 2009 in Strasbourg, France. The call for papers deadline is February 7, 2009.

http://spi.univ-brest.fr

The 7th International Workshop on Electromagnetic Compatibility of Integrated Circuits (EMC COMPO 2009) is November 17-20, 2009 in Toulouse, France. The call for papers deadline is May 30, 2009.

http://www.emccompo.org

IEC APPROVAL ACTIVITIES

Randy Wolff reported that the IEC approval discussion will be set back by a couple of months until Chris Denham returns to work.

SUMMIT STATUS

- 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 scheduled for the summit. The third call for papers and participation went out yesterday. The meeting room is in the main convention center in rooms 209-210. Syed Huq is the main contact for the event. The registration deadline is January 28, 2009 to receive the free lunch. The final submission deadline for presentations is also January 28. Cisco is officially a sponsor of the event.

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 1.1 draft of the IBIS Quality specification is now on its 35th revision. The group is reviewing section 6.

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

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

IBIS MODEL REVIEW TASK GROUP

No update.

ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported that the group had its first meeting of the year this week. Walter Katz discussed ideas to keep advancing the current specification to cover current needs. The group needs to decide whether to approach fixing the current specification or working on a new specification. More feedback is needed. Syed Huq requested to view the list from Walter, so Mike LaBonte planned to post it to the task group website.

Arpad summarized that Walter's list includes improvements to C_comp, package modeling, and differential modeling. It also included simplified models for LTI simulations, Touchstone sparse data, and improvements to ODT modeling. Bob Ross mentioned that many issues are controversial and need more discussion. Arpad felt that the list would need to be trimmed down if the items were to be fully addressed in a short period of time.

Syed asked what the goal of the task group is. Arpad responded that the group plans to eventually make recommendations to the main IBIS group for future direction of IBIS and would advance any BIRDs to the main group.

Task group material can be found at:

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

AD HOC TASK GROUPS (INTERCONNECT)

Michael Mirmak reported that progress on Touchstone 2 has proceeded well and the document is nearly complete. They hope to bring the document to the main IBIS group at the next meeting. The group meets every Wednesday.

Task group material can be found at:

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

2008 BUDGET CLOSURE

Michael Mirmak reported that we have about \$4500 of extra revenue for 2008. This must be allocated by January 12, 2009 or we lose it. Bob Ross advanced a list of spending proposals. This included a \$1000 payment for development of a new logo and prepayment for booth and food expenses at DesignCon. Randy Wolff expressed concern over not having a contract in place with the logo developer and suggested we put together a simple contract agreement soon. Bob Ross noted that checks need to be cut from GEIA today or Monday. Michael felt that this could be done, but if we run into issues, we won't worry about the booth payment. Bob Ross motioned that we approve this funding plan. The plan was approved by acclimation.

NEW ISSUES

None.

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

Bob Ross reported that he was contacted recently by Michael Schaeder, but he has not made any further progress on reviewing the BIRD yet. The issue to review relates to handling of differential nets.

IBISCHK5 PARSER STATUS

Michael Mirmak reported that the bid committee needs to finalize a bid packet. A decision needs to be made on inclusion of API parsing code. Bob Ross felt that the bid packet completion needs to be high priority. Finishing this early in the year allows for more flexibility in funding. Donation of code for API parsing was discussed, and it was decided that a bid packet will be advanced without mention of the code donation at this point. Michael felt that he could put out the bid packet in a few days.

IBISCHK4 BUG STATUS

Michael Mirmak reported that two BUGs are open right now and there is a potential one related to BIRD106. There are no plans to fix these in the near term.

The BUG report list is available at the link below:

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

ICMCHK1 BUG STATUS

After input from John Angulo and the original developer Kelly Green, Michael Mirmak was able to get compilations working for Linux but not for Windows yet. The QA and documentation are complete. ICMCHK1.1.2 will be released once the Windows compilation is finished.

NEW ISSUES

None.

NEXT MEETING

The next IBIS Open Forum teleconference will be held January 30, 2009 from 8:00 AM to 10:00 AM US Pacific Standard Time. The next IBIS Open Forum Summit will be held February 5, 2009 at DesignCon in Santa Clara, California.

NOTES

IBIS CHAIR: Michael Mirmak (916) 356-4261, Fax: (916) 377-3788 <u>michael.mirmak@intel.com</u> Server Platform Technical Marketing Engineer, Intel Corporation FM5-239 1900 Prairie City Rd. Folsom, CA 95630

VICE CHAIR: Syed Huq (408) 525-3399, Fax: (408) 526-5504 <u>shuq@cisco.com</u> Manager, Hardware Engineering, Cisco Systems 170 West Tasman Drive San Jose, CA 95134-1706

SECRETARY: Randy Wolff (208) 363-1764, Fax: (208) 368-3475 rrwolff@micron.com

> SI Modeling Manager, Micron Technology, Inc. 8000 S. Federal Way Mail Stop: 01-711 Boise, ID 83707-0006

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POSTMASTER: Bob Ross (503) 246-8048, Fax : (503) 239-4400 <u>bob@teraspeed.com</u> Staff Scientist, Teraspeed Consulting Group

10238 SW Lancaster Road Portland, OR 97219

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 (<u>ibis@eda.org</u>) IBIS Users' Group Reflector (<u>ibis-users@eda.org</u>) 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.

GEIA STANDARDS BALLOT VOTING STATUS

Standards									
	Interest	Ballot Voting	November	November	December	January 9,			
Organization	Category	Status	14, 2008	21, 2008	12, 2008	2009			
Actel	Producer	Inactive	· ·	·					
Advanced Micro Devices	Producer	Active	\checkmark	\checkmark	\checkmark				
Agilent Technologies	User	Inactive							
Ansoft	User	Inactive	\checkmark						
Apple Computer	User	Inactive							
Applied Simulation Technology	User	Inactive							
ARM	Producer	Inactive							
Cadence Design Systems	User	Inactive	\checkmark						
Cisco Systems	User	Active		\checkmark	\checkmark	\checkmark			
Ericsson	Producer	Active	\checkmark	\checkmark	\checkmark				
Freescale	Producer	Inactive							
Green Streak Programs	General Interest	Inactive							
Hitachi ULSI Systems	Producer	Inactive	\checkmark						
Huawei	User	Active		\checkmark	\checkmark				
IBM	Producer	Active		\checkmark	\checkmark				
Infineon Technologies AG	Producer	Inactive							
Intel Corp.	Producer	Active	\checkmark	\checkmark	\checkmark	\checkmark			
LSI	Producer	Active		\checkmark	\checkmark	\checkmark			
Marvell Semiconductor	Producer	Inactive							
Mentor Graphics	User	Active		\checkmark	\checkmark	\checkmark			
Micron Technology	Producer	Active	1	\checkmark	\checkmark	\checkmark			
Nokia Siemens Networks	Producer	Active		\checkmark		\checkmark			
Samtec	Producer	Inactive							
Signal Integrity Software	User	Active		\checkmark	\checkmark				
Sigrity	User	Inactive				\checkmark			
Synopsys	User	Inactive							
Teraspeed Consulting	General Interest	Active	\checkmark	\checkmark	\checkmark	\checkmark			
Texas Instruments	Producer	Active			\checkmark	\checkmark			
Toshiba	Producer	Inactive	\checkmark						
Xilinx	Producer	Active	\checkmark	\checkmark	\checkmark	\checkmark			
ZTE	User	Inactive							
Zuken	User	Inactive	\checkmark						

I/O Buffer Information Specification Committee (IBIS)

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.