EIA IBIS Open Forum

Meeting Date: **November 21, 2008**

VOTING MEMBERS AND 2008 PARTICIPANTS

Actel	(Prabhu Mohan)
Agilent Technologies	Sanjeev Gupta, Radek Biernacki, Amolak Badesha Fangyi Rao, [Ian Dodd], Yutao Hu, Vuk Borich Nobutaka Arai, Ludwig Eichingner, Cheng-ming Ren, Xuliang Yuan, Jianping Zhu
AMD	Nam Nguyen*, Tadashi Arai
Ansoft Corporation	Steve Pytel, Ricardo Teliuteuesh, Dan Dvorscak, Steele Deng, Donny Hou, Baolong Li, Davis Yan, Long Yang, Song Zheng, Kazuhiro Kadota, Mitsuyo Kawata, Toru Watanabe
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, Lanbing Chen, Wenliang Dai, Feng Li, Shirley Li, Jinbai Liu, Ping Liu, Yabao Meng, Jian (John) Peng, Jain Shan, Hui Wang, Yitong Wen, Yitong Wu, Dingru Xiao, Ke (Coco) Xu, Feng Yu, Rong Zhang, Wenjiang Zhang, Alex Zhao, George Zhou, Yukio Masuko, Morihiro Nakazato, Norikazu Takada
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, Jin (Leo) Hu, Weifeng Shu, Xinghai (Sean) Tang, Huihui (Iris) Zhao
Ericsson	Anders Ekholm*
Freescale	Jon Burnett
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	Kazuyoshi Shoji, Shinmei Hirano, Shinji Itano, Sadahiro Nonoyama, Hiroshi Uematsu
Huawei Technologies	Tao Guan*, Xiaoqing Dong, Yu Chen, Jing Fu, Peng Huang, Jinjun Li, Bo Liu, Mongfang Lv, Shaokun Shen, Victor Wang, Shisheng Wu, Qilin Xu, Zhenlong Xu, Hang Ya, Zhou Yang, Wen Yu, Cheng Zhang, Gezhi Zhang, Yuehui Zhu
IBM	Adge Hawes*
Infineon Technologies AG	Christian Sporrer
Intel Corporation	Michael Mirmak*, Rich Mellitz, Wei-hsing Huang

	Vishram Pandit, Lili Deng, Haifeng Gong, Fanghui Li, Wenjie Mao, Yang Qu, Yiunglei Ren, Wayne Tsuchimoto, Yang Wu, Maoxin Yin, Xinjun Zhang, James Zhou, Nanditha Rao
LSI	[Frank Gasparik], Brian Burdick*, [Kim Helliwell]
Marvell Semiconductor	Jane Liu, Michael Wang, Yuyang Wang,
Mentor Graphics	Arpad Muranyi*, John Angulo, Minggang Hou, Jane Liao, Xuefeng Liu
Micron Technology	Randy Wolff*
Nokia Siemens Networks GmbH	Eckhard Lenski*, Klaus Huebner, Katja Koller, Xianyun Wang
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 Stytte, Raymond Chen, Jiangsong Hu, Xianfeng Li, Tao (Helen) Xu
Synopsys	Ted Mido, Xuefeng Chen, Wenyun Gu, Jinghua Huang, Deng Shi
Teraspeed Consulting Group	Bob Ross*, Tom Dagostino, Al Neves
Texas Instruments	Richard Ward, Pavani Jella
Toshiba (I.S. Corporation)	Yasumasa Kondo, Noriyasu Yoshikawa, Yoshihiro Hamaji, Atsushi Osaki
Xilinx	David Banas*, Ajay Shah, Suzanne Yiu Mustansir Fanaswalla
Zuken	Michael Schaeder, Ralf Bruening, Shigeru Hayashi, Hirohiko Matsuwawa
ZTE	Huifeng Chen, Xiaolin Chen, Jinku Guan, Hui Jiang, Nan Jiang, Shiju Sui, Zhiwei Yang, Shunlin Zhu

OTHER PARTICIPANTS IN 2008

3M	Kylin Chen, Shiang Yao
Aeroflex Metelics	David Nguyen
AET	Mikio Kiyono
Aica Kogyo	Akihiro Tanaka
Alcatel-Lucent	Haibo Wang
Alcatel-Shell	Weiping Chen, Feng Ji
Altera	Ravindra Gali, Jing Wu, John Oh, Hui Fu
ATE Service Corporation	Hideaki Endo, Yutaka Honda, Kevin Iida, Hiroyuik Itabashi, Kenji Kagawa
Avago Technologies	Minh Quach, Sari Tocco
Bayside Design	Elliot Nahas, Kevin Roselle
Canon	Seiji Hayashi, Shoji Matsumoto, Takamasa Sakuragi, Haruka Watanabe
Celestica	Ihsan Erdin, Shuxu Bao, Ricky Liu, Gloria Wang,

	Shengyu Wu, Molly Xu, Harrison Xue, Camilla Zhang, Van Zhu
Cybernet Systems	Golden Qian, Bill Wang, James Wang, David Xu Junko Kuriyama, Ryo Nakayama, Takayuki Tsuzura, Masato Yanagisawa
ECL Advantage	Thomas Iddings
EFM	Ekkehard Miersch
Elma Bustronic	Michael Munroe
Exar	Helen Nguyen
Feng Hao Shanghai Information	Zhengchang Gu
Fiberhome Telecommunications	Qian (Andy) Liao, Juan Liu, Elliotte Wan, Qi Zheng
Flextronics	Hasnain Syed
Fujitsu Advanced Technology	Shogo Fujimori, Hikoyuki Kawata, Toshiro Sato
Fujitsu Limited (Digital Process)	Masakatsu Kinjo, Kazumasa Kobayashi
GEIA	(Chris Denham)
Golden Bridge Networks	Saman Sadigh
Hisense Electronic	Haishi Hu
Huawei-3Com	Wei Yang
ICT Solutions	Steven Wong
IDT Newave	Zhiguang Li
Interface Technologies	Dan Waterloo
Inventec Corporation	Leonardo Huang, Zhong Peng
IO Methodology	Lance Wang*, Zhi (Benny) Yan, Li (Kathy) Chen, Seana Tong, Salvia Yu, Zhangmin Zhong, Edwin Zhu
JEITA	Atsushi Ishikawa, Hideo Kogure
Kawasaki Microelectronics	Hajime Kinugasa, Hiroyuki Sato
KEI Systems	Shinichi Maeda
Magma DA	Anand Ramalingam
Meds IC Solutions	Xinhua Zhang
Nanjing Nari-Relays	Tao Wang, Yu Xia
NEC	Takeshi Watanabe, Itsuki Yamada
NetLogic Microsystems	Eric Hsu
North Carolina State University	Paul Franzon
Nokia	Ali Arsian
Nuova Systems	Zhiping Yang
Nvidia Corporation	Baal Yang, Tibet Zhao
Prentice Hall	Bernard Goodwin
Physware	Marc Kowalski
Politecnio di Torino	Igor Stievano
Qimonda AG	Md Morshed Alam Heial, Suhas Jawale
Radisys	Ling Li, Guo Tang
Ricoh	Yuji Maeno
Shanghai University	Shipeng Liu
Siemens AG	Manfred Maurer, Annika Woehner
Simberian	Yuriy Shlepnev

SimLab Software GmbH	Heiko Grubrich
Sony	Toshiro Honda, Iguchi Yasuhiko
Sony EMC Corporation	Takeshi Osanai
TDK	Yoshikazu Fujishiro
Tektronix	Steve Corey, Xin Wu
TietoEnator GmbH	Heinz-Hartmut Ibowski
Trident Multimedia Technologies	Xiagin Cao, Jeffery He
Tyco Electronics	Chad Morgan
Universal Scientific Industrial	Lurker Li, Spenser Tang
VeriSilicon Microelectronics	Qiang Chen, Steven Gou, Zhiying Yuan
Vertical Circuits	Mark Egbers
Victor Corporation of Japan (JVC)	Manabu Matsumoto
Winwin Corporation	Haiphe Lau, Linfa Liu
Xsigo Systems	Robert Bada
Zuken Support and Service	Seikou Go, Yoshiaki Nishi, Tomotaka Unose, Yin Yi
Independent	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
December 12, 2008	1-866-432-9903	???

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. Note that Bob Ross took charge of running the meeting, as Michael Mirmak's voice was almost gone.

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
Bob Ross reported that we stand at 32 members. We have some extra money to spend before the end of the year. Our budget for next year assumes $900/member in dues. There is a 5% increase over last year for GEIA dues.

REVIEW OF MINUTES AND ARS
Bob Ross called for comments regarding the minutes of the October 31, 2008 IBIS Open Forum teleconference. The minutes were approved without changes.

WEB PAGE UPDATES
Bob Ross reported that the events page was updated to move the Asian IBIS summits off the top of the list.

MAILING LIST ADMINISTRATION
Bob Ross reported that everything is working normally.

MODEL LIBRARY UPDATE
No update.

PRESS UPDATE
Bob Ross noted that there is a Japanese blog that mentions the Japan IBIS summit meeting. The blog can be found at:

> http://arap.way-nifty.com/siblog/cat2412256/index.html

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
Michael Mirmak noted the GEIA is requesting updates on all official contact emails and addresses for current members for invoicing use. Bob Ross mentioned that there is a pending merger in the news between ITAA and AEA. We may have a new parent organization within 2-4 months. We also need to redesign our IBIS logo. Chris Denham advised that we get professional help for the design, and we should hold off until any mergers are completed unless we want to leave all names off of the logo. Randy Wolff suggested that we have an open design contest to allow multiple submittals. Bob suggested we pay between $500 - $1000 for the design.

IEC APPROVAL ACTIVITIES
Randy Wolff reported that he plans to contact Victor Berman again to ask for an update on the IEC September meeting. Michael Mirmak updated that Chris Denham has not talked with Victor about copyrights.

SUMMIT STATUS
- Asian IBIS Summit (China) Review
The China summit was held November 11, 2008 in Shanghai at the Shanghai Mart Convention Center. Huawei Technologies, Agilent Technologies, Ansoft, Cadence Design, Cybernet Systems, Intel, Mentor Graphics, SiSoft, Sigrity, Synopsys and ZTE Corporation were the official sponsors. Bob Ross noted that is was a successful meeting with 142 attendees. Minutes have been sent out already and the presentations are uploaded to the IBIS website. Vendor tables were well attended. Randy Wolff and Todd Westerhoff commented on the wide variety of presentations. Bob mentioned that for a summit next year, we will need to raise some more funds. It would probably be held in Shenzhen or Shanghai.

- Asian IBIS Summit (Japan) Review
The Japan summit was held in Tokyo at JEITA headquarters on November 14, 2008. Official sponsors were JEITA, Agilent Technologies, Ansoft, ATE (Sigrity), Cadence Design Systems, Cybernet Systems, Fujitsu and Zuken. Bob noted there were 61 attendees. There was good discussion and more time for questions than at the China summit. There were vendor tables this year, and they were successful. There were some different presentations than at the China summit. The large meeting room in the new JEITA headquarters could handle more attendees.

- 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 noted that all contracts have been signed. We are in the conference center, but in a different meeting room than last year. We are still looking for co-sponsorship for the meeting. Syed Huq will handle the local arrangements. We will work with the same food vendor. We will have a booth, but we may need to pay for a few items associated with this. Todd Westerhoff is on the DesignCon programming committee, and he commented that everything is going according to plan.

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 has two more checks to review related to [Ramp]. Some people put more emphasis on importance of [Ramp] than others. There were two model quality related presentations given at the summits. The group may want a discussion of these after the [Ramp] discussion is finished.

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 meeting again this week after a one week break. They are trying to summarize presentations related to C_comp improvements and decide if they should add more keywords to IBIS or look at other ways to handle it. He encouraged attendance because these discussions are fundamental to the future direction of IBIS. Also, the group is making progress with Synopsys related to use of HSPICE syntax for an IBIS-SPICE language. They are still working through legal approvals.

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 is working on some suggestions for Touchstone improvement. They recently covered the topic of adding an information block section with the [Begin Information]/ [End Information] keywords. They also discussed a way of indicating network data and noise data within the file. They are looking at syntax issues with the keywords to improve ease of parsing.

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 has had discussions with Michael Schaeder and Mike LaBonte, but no progress has been made yet. One presentation in the China summit included use of an EBD to model a differential net. Bob thinks the EBD language should support differential nets. He tested the parser and it already supports the BIRD111.1 proposals.

IBISCHK5 PARSER STATUS
Bob Ross reported that the parser committee is deciding if an IBIS 5.0 parser package would include some parsing of AMI files. There may be a donation of an existing parser from SiSoft for this purpose. The bid packet is in development. David Banas suggested adding to the list of deliverables a list of which sections of the IBIS Quality specification (IQS) are covered by the parser. A model developer needs to know which parts of the IQS are checked by the parser and which parts need to be checked subsequently. Mike LaBonte noted that the Quality task group is eliminating quality checks that duplicate what the parser already covers. With the new IQS checks, level 1 means that the model passes the parser. So, that level of quality is already covered as relates to the parser. The committee is looking at options including pay-as-you-go development to make sure critical items are funded first.

IBISCHK4 BUG STATUS
Bob Ross said that BUG101 was classified at the last meeting. The Quality committee is considering proposing a parser BUG (enhancement) to add checking of the dV portion of the [Ramp] data.

The BUG report list is available at the link below:

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

ICMCHK1 BUG STATUS
Bob Ross reported that John Angulo did look at the parser upgrade and is inserting test code for the change. A BUG limited the file extension size to 3 characters. John is having issues integrating the tests due to GNU licensing issues, so he may need some additional help. The new parser will be version 1.1.3 when released. Michael Mirmak stressed that there can be no GNU license unless it has a limited GPL license with it, because this affects use of the parser in commercial products. If the official parser can't be fixed now, the fix could be privately noted to parser purchasers. The code could be released without a regression suite. Michael took the

AR to inform parser purchasers of the new code.

NEW ISSUES
None.

NEXT MEETING
The next IBIS Open Forum teleconference will be held December 12, 2008 from 8:00 AM to 10:00 AM US Pacific Standard Time.

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NOTES

IBIS CHAIR: Michael Mirmak (916) 356-4261, Fax: (916) 377-3788
      michael.mirmak@intel.com
      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
      shuq@cisco.com
      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

LIBRARIAN: Lance Wang (978) 633-3388
      lwang@iometh.com
      President / CEO, IO Methodology, Inc.
      PO Box 2099
      Acton, MA 01720

WEBMASTER: Syed Huq (408) 525-3399, Fax: (408) 526-5504
      huqs@cisco.com
      Manager, Hardware Engineering, Cisco Systems
      170 West Tasman Drive
      San Jose, CA 95134-1706

POSTMASTER: Bob Ross (503) 246-8048, Fax : (503) 239-4400
bob@teraspeed.com
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 (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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GEIA STANDARDS BALLOT VOTING STATUS

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	October 31, 2008	November 11, 2008	November 14, 2008	November 21, 2008
Actel	Producer	Inactive				
Advanced Micro Devices	Producer	Active	√		√	√
Agilent Technologies	User	Inactive		√		
Ansoft	User	Active		√	√	
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	Inactive	√			√
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	Inactive	√			
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:

- 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.