

EIA IBIS Open Forum Minutes

Meeting Date: **September 21, 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, Quanli Li, Mike Resso, Chengming Ren, Dong Wei, Tim Wu, Xindong Xue, Nianmin Zhang, Jianping Zhu, Takahiro Sato
AMD	Nam Nguyen*, Tadashi Arai
Ansoft Corporation	Haiqiang Ding, Baolong Li, Ying Liu
Applied Simulation Technology	(Fred Balistreri)
Apple Computer	(Bill Cornelius)
Cadence Design Systems	[Lance Wang], C. Kumar, Hemant Shah, Patrick dos Santos, Ambrish Varma, Shangli Wu, Lanbing Chen, Jianwei Hu, Jacob Lai, Yubao Meng, Jian Peng, Ke (Coco) Xu, Liu Zheng, Norikazu Takada, Yukio Masuko
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, Bill (Qinghua) Chen
Ericsson	Anders Ekholm*, Ole Segtum, Peng Fu
Freescale	Jon Burnett
Green Streak Programs	Lynne Green
Hitachi ULSI Systems	Kazuyoshi Shoji, Shinmei Hirano
Intel Corporation	Michael Mirmak*, [Arpad Muranyi], Lili Deng, Haifeng (Bill) Gong, Tao Hu, Karen Kang, Fanghui Li, Maoxin Yin, James Zhou
IO Methodology	Lance Wang, Esther Gao, Nancy Peng, Benny Yan, Xinjun Zhang, Wei Zhu
LSI	Frank Gasparik*, Kim Helliwell, Dinh Tran, Praveen Soora, Brian Burdick*
Mentor Graphics	John Angulo, Arpad Muranyi, [Ian Dodd], Eric Rongere, Stephane Rousseau, Bill Hargin, Patrick Carrier, Vivian Pan, Tao Wang, Lifu You, Kenji Kushima, Masahiro Nakajima
Micron Technology	Randy Wolff*, Pavani Jella
Nokia Siemens Networks GmbH[1]	Eckhard Lenski*, Flavio Maggioni, Roberto Preatoni, Umberto Gatti, Massimo Ceppi

Panasonic	Atsuji Ito
Samtec	(Corey Kimble)
Signal Integrity Software	Barry Katz, Douglas Burns, Mike Steinberger, Walter Katz, Todd Westerhoff
Sigrity	Sam Chitwood, Sandy Dung, Raymond Chen, Xianfeng Li, Tao (Helen) Xu
STMicroelectronics	Antonio Girardi, Giacomo Bernardi, Roberto Izzi, Akhilesh Chandra
Synopsys	Ted Mido, Xuefeng Chen, Changlei Zhang
Teraspeed Consulting Group	Bob Ross*, Tom Dagostino
Texas Instruments	Otis Gorley, Richard Ward, Bonnie Baker
Toshiba	Yoshihiro Hamaji, Yasumasa Kondo, Atshshi Osaki Nonyasu Yoshikawa, Toshihiro Tsajimura
Xilinx	Bruce Bandeli, David Banas*
ZTE	Songrui Chen, Xianhui Hu, Wei Jia, Dongfeng Sun Changjun Wang, Ying Xiong, Shenglong Yang Yanfeng Yu, Xiaojun Zhou, Shunlin Zhu
Zuken	Michael Schaefer, Ralf Bruening, John Berrie, Hayashi, Hirohiko Matsuwawa

OTHER PARTICIPANTS IN 2007

74ze Engineering	Linc Jepson
AcconSys	David Lan, Suny Li, Jianfeng Tan, Jiangtao Wu, Frank Xiao
Agere	(Nirav Patel)
Alcatel Shanghai Bell	Wei Li, Lifan Sun
Altera	Hui Liu, Zhe Lin, Ravindra Gali, Salman Jiva
Apache Design Solutions	(Ji Zheng)
Applied Telisis, Inc. (ATI)	Vladimar Mandrusov
ATE Service Corporation	Yutaka Honda
Canon	Seiji Hayashi, Shoji Matsumoto, Tatsuo Nishino, Sakuragi Takamasa, Haruka Watanabe, Nobuaki Yamashita
Cavium Networks	Johann Nittmann
CEC Huada Electronic Design	Weiwei Liu
China Integrated Circuit	Jingcheng Luo
ChipX	Jay Hidy, Oren Dvir
Cybernet Systems	[Kazuhiki Kusunoki], Masahito Kobayashi, Junko Kuriyama
Dangtang Mobile	Fanjie Meng, Hongying Li, Hongwei Wang
EDN China	Frank Yao
EE Times Japan	Norihiro Satsukawa
EFM	Ekkehard Miersch
EMC Technology	Michael Liu, Feng Lu, Changzheng Yang
Enterasys	Robert Haller

Extreme Networks	Kevin Ko
Fluent	(Chetan Desai)
Force10 Networks	Robert Badal
Free Electron Software	Al Davis
Fujitsu Limited	Kouichiro Asoh, Tetsuya Inoue, Toshiro Sato, Fujimori Shogo, Wasaki Tosaka
GEIA	(Chris Denham)
Gnovo Technologies	Harris Ma
Hangzhou H3C Technologies	Chunbao Yan
Hewlett Packard	Shafiq Rahman
Huawei 3Com	Junjun Cui, Zhenyu Liu, Jun Mao, Bao Wang, Kai Xie, Haitao Zhang
Huawei Technologies	ChunXing Huang, Bob He, Tao Guan, Peng Hu, Xiangzhong Jiang, Meidan Liu, Haiyan Yu
IBM	Michael Sorna, Adge Hawes, Kevin Kramer, Wei Wang
IMECAS	Yunfeng Wang
IVIS Co.	Hiroyuki Mashima
Infineon	Christian Sporrer
Integrated Circuit Systems (ICS)	(Dan Clementi)
Japan Aviation Electronics Industries	Hiroaki Ikeda
JEITA	Atsushi Ishikawa
Juniper Networks	Raul Lozano
Kawasaki Microelectronics	Hiroyuki Sato, Takashi Kawahara
Leventhal Design	Roy Leventhal
LHWT Microelectronics	Jiahui Wang
Lynguent	Andrew Levy
Motorola	Hong Chen, Haiying Jiang, Daniel Tang
National Institute of Applied Science (INSA)	Etienne Sicard
National Instruments	Lee Maixman
Netlogic	Eric Hsu
NEC Electronics Corporation	Takeshi Watanabe, Hock Seow, Huy Tran, Itsuki Yamada
NESA	Edward Sayre
Northrop Grumman	Dusan Radosevic
Nortel Networks	Jingxin Bian, Feng Shi
Nuova Systems	Zhiping Yang, Lin Shen
NVIDA Corporation	Jing (Jane) Zhang
NXP	H N Sudarshan
Optimal Corporation	Marc Kowalski
Politecnico di Torino	Igor Stievano, Michelangelo Bandinu
Renesas Technology	Takuji Komeda
Samsung	Sang-Soo Park

Sedona International	Joe Socha
Sharp	Tetsuo Iwaki
Shizu Technology	Zuofu Qi
Siemens AG [1]	[Eckhard Lenski], Manfred Maurer
Silego	(Joe Froniewski)
Sony Corporation	Toshiro Honda, Keisuke Matsunami
Shu Zi Tai He	Chunyu Zhao
Sun Microelectronics	Leon Yang
Tiburon Design Automation	Patrick O'Halloran
Via Technologies	Jimmy Hsu
White Electronics Designs	John Perez
Xyratex	Paul Levin, Joseph Chan
Zuken Support and Service	Seikou Go, Tomotaka Unose

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
October 12, 2007	1-916-356-2663	4	795-9610

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

None.

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 stand at 29 paid members. The budget is in the black, and he

is expecting additional membership joins and is working to clarify a couple of financial questions with GEIA.

REVIEW OF MINUTES AND ARS

Michael Mirmak called for comment regarding the minutes of the August 24, 2007 IBIS Open Forum teleconference. The minutes were approved without change.

WEB PAGE UPDATES

Syed Huq reported that he made changes to the events page reflecting changes to the Asian Summit status.

MAILING LIST ADMINISTRATION

Bob Ross reported that everything is running normally. Michael Mirmak reported that he is noticing a lot more SPAM emails getting bounced by the list.

MODEL LIBRARY UPDATE

No update.

PRESS UPDATE

No update.

MISCELLANY/ANNOUNCEMENTS

None.

OPENS FOR NEW ISSUES

None.

INTERNATIONAL/EXTERNAL PROGRESS

Upcoming conferences of interest to IBIS members are listed below.

The 6th International Workshop on Electromagnetic Compatibility of Integrated Circuits (EMC Compo 2007) is to be held November 28-30, 2007, in Torino, Italy. There will be some sessions mentioning IBIS. More information can be found at:

<http://www.emccompo07.polito.it/>

Michael Mirmak noted that there was a DASC meeting yesterday. A PAR (Project Authorization Request) is being submitted to IEEE related to a quality report for design IP. There is a presentation available. There has been no additional meeting on encryption since the first one last month. Our participation is encouraged in the quality or encryption meetings, but we do not have a "defined" role in these committees. Syed Huq asked how to find out about future

meetings. Michael said to check the meeting minutes for the schedule. The next meetings are October 18 and November 15. Mike LaBonte asked how to find more information about the quality initiative. Michael suggested contacting Kathy Werner, the presentation author.

The IEEE DASC Study Group on Encryption website is found at:

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

IEC APPROVAL ACTIVITIES

Randy Wolff noted that there was a meeting of the IEC TC93 committee September 4-5 in Washington, D.C. Dennis Brophy, the co-convenor of TC93 WG2 invited us in August to attend, however with the timing of the Asian IBIS Summits; no one was able to attend. TC93 WG2 is the group that standardized IBIS 3.2 originally. Bob Ross suggested that Dennis be re-contacted to initiate the IEC approval.

SUMMITS

- Asian IBIS Summit (China) Review

The Asian IBIS Summit (China) was held Tuesday, September 11 at The Park Plaza Science Park hotel in Beijing. Michael reported that there were 101 attendees from about 34 organizations. There was a full agenda with good discussions, although little time for questions. Surveys came back very positive. There is already discussion about potential locations including Shenzhen for next year. There were 15 presentations. 13 were presented and two others were included in the booklet. 8 presentations were given by Asian presenters. Official sponsors were Huawei Technologies, Agilent, Ansoft, Cadence, Intel, Mentor Graphics, Sigrity, SiSoft, Synopsys and ZTE Corporation.

- Asian IBIS Summit (Japan) Review

The Asian IBIS Summit (Japan) was held Friday, September 14 at JEITA headquarters in Tokyo. Sponsors included Agilent Technologies, ATE Service Corporation (Sigrity), Cadence Design Systems, Cybernet Systems, IVIS (SiSoft), Mentor Graphics and Zuken. The other official sponsor of the Japan summit was JEITA. Michael reported that 54 people from 29 organizations attended. It was a very full event. Some presentations were shared between the Japan and China events. Many US visitors went to both events. There was a little time for good discussion. 14 total presentations were given. 4 presentations were from Japan, with 6 total from Asia counting two others written in China. Both events were successful in getting local participation. Michael thanked all the sponsors for making these events possible. He also thanked all the presenters and participants. He also mentioned that all the presentations are available on our website at the link:

<http://www.vhdl.org/pub/ibis/summits/>

- Design Con Planning

DesignCon 2008 will be held February 4-7, 2008 at the Santa Clara convention center. The IBIS Summit is tentatively scheduled for Thursday, February 7, 2008. Syed Huq will be the main contact for the event. Michael mentioned that we have confirmed having insurance through the GEIA, so we will be able to have the booth this year. Anyone working the booth will need to have workers compensation insurance through their employers.

Sponsorship opportunities for the DesignCon IBIS summit 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 progress has been a little slow, with certain checks needing repeated reviews. He received from JEITA some suggestions of changes to make to the quality document. There was a presentation related to IBIS Quality presented in Tokyo that the group will review. Some comments from JEITA relate to the inability to understand the specification due to it being too vague.

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

Michael Mirmak reported that the last meeting was on Tuesday. There was a proposal on additional differential treatment, to figure out how the algorithmic model should apply to differential pins. Some proposals are in the works. The group is expecting to see a BIRD submission in the near future.

Task group material can be found at:

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

AD HOC TASK GROUPS (INTERCONNECT)

Michael Mirmak had no update since the last meeting. Additional discussion about the ICM to IBIS links is planned. The next meeting is Wednesday of next week.

Task group material can be found at:

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

NEW ISSUES

None.

IBISCHK4 BUG STATUS

There are no open BUGs at this time. Currently at version 4.2.2. Mike LaBonte mentioned seeing a misspelling of "hysteresis" in a parser output. Michael suggested sending an email to put this on file, and then to add this to a future BUG submission.

ICMCHK1 BUG STATUS

Michael Mirmak reported that there is one BUG, but it will not be fixed until the next version of the parser. The next release of the parser will come out once IIRD9 is closed.

BIRD98.2: GATE MODULATION EFFECT (TABLE MODEL)

Bob Ross reported that he has been helping to edit the "Other Notes" section of the BIRD. There is contradictory text describing the algorithm related to whether voltages are relative or absolute. Also, some terms are introduced in the description that may be confusing to some readers. He is working with the STMicroelectronics authors to re-write the text. He is also looking to include a suggested algorithm in the description.

NEW TECHNICAL ISSUES

None.

OPEN ISSUES

None.

NEXT MEETING

The next IBIS Open Forum teleconference will be held October 12, 2007 from 8:00 AM to 10:00 AM US Pacific Time.

=====

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

rwolff@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

shuq@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-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/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-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	August 24, 2007	September 11, 2007	September 14, 2007	September 21, 2007
Advanced Micro Devices	Producer	Active			√	√
Agilent Technologies	User	Active		√	√	
Ansoft	User	Inactive		√		
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	Active		√	√	
Intel Corp.	Producer	Active	√	√	√	√
IO Methodology	User	Active		√	√	
LSI Logic	Producer	Inactive	√			√
Mentor Graphics	User	Active	√	√	√	
Micron Technology	Producer	Inactive				√
Nokia Siemens Networks	Producer	Inactive				√
Panasonic	Producer	Inactive			√	
Samtec	Producer	Inactive				
Signal Integrity Software	User	Active	√	√	√	
Sigrity	User	Active	√	√	√	
STMicroelectronics	Producer	Inactive			√	
Synopsys	User	Inactive		√		
Teraspeed Consulting	General Interest	Active	√	√	√	√
Texas Instruments	Producer	Inactive				
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.