IBIS Open Forum Minutes

Meeting Date: **November 20, 2009**
Meeting Location: **Teleconference**

VOTING MEMBERS AND 2009 PARTICIPANTS

Actel	(Prabhu Mohan)
Agilent	Brian Andresen, Radek Biernacki, Saliou Dieye, Yutao Hu, Fangyi Rao, Xuliang Yuan
AMD	Nam Nguyen*, Tadashi Arai
Ansoft Corporation	Steve Pytel, Chris Eric, Dan Hou, Baolong Li, Jack Qiu, Davis Yan
Apple Computer	(Matt Herndon)
Applied Simulation Technology	(Fred Balistreri)
ARM	V. Muniswara Reddy
Cadence Design Systems	Terry Jernberg, Ambrish Varma, Aileen Chen, Lanbing Chen, Wenliang Dai, Fenghua Gao, Feng Li, Ping Liu, Yubao Meng, Jian (John) Peng, Qian (Candy) Shen, Muker Wang, Yifong Wen, Jun Wu, Zhi (Benny) Yan, Wayne Zhang, Wenjiang Zhang, Qi (Alex) Zhao, Yukio Masuko, Morihiro Masuko
Cisco Systems	Luis Boluna, Tram Bui, Bill Chen, Syed Huq*, Mike LaBonte, Pedo Miran, Huyen Pham, [AbdulRahman (Abbey) Rafiq], Ashwin Vasudevan, Zhiping Yang, Guan (Greg) Fu, Jin (Leo) Hu, Chunhai Li, Weifeng Shu, Xinghai Tang
Ericsson	Anders Ekholm*
Green Streak Programs	Lynne Green
Huawei Technologies	Xiaoqing Dong, Chunxing Huang, Guan Tao, Yu Chen, Zengzing Hu, Chun Huang, Jun Li, Han Li, Jinjun Li, Benguo Lin, Bo Liu, Shuyao (Charles) Liu, Longfang Lu, Luyu Ma, Huang Peng, Lin Qiang, Kaler Ren, Minghua Wu, Jianhong Xiang, Hang Yan, Xubo Ye, Hongcheng Yin, Xuequan (Tony) Yu, Cheng Zhang, Gezi Zhang, Yi Zhao, Yi Zhou
Hitachi ULSI Systems	Shinmei Hirano, Kazuyoshi Shoji, Yoshiyuki Yagami
IBM	Adge Hawes*
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Myoung J. Choi, Michael Mirmak, Vishram Pandit, Jon Powell, Sirisha Prayaga, Lili Deng, Leo Fang, Haifeng (Bill) Gong, Fanghui Li, Jenny Li, Wenjie Mao, Yiunglei Ren, Yang Wu, Maoxin Yin, Xinjun Zhang
IO Methodology	Li (Kathy) Chen, Lance Wang*, [Zhi (Benny) Yan]

LSI	Brian Burdick*
Mentor Graphics	Weston Beal, Vladimir Dmitriev-Zdorov, Zhen Mu, Arpad Muranyi*
Micron Technology	Randy Wolff*
Nokia Siemens Networks GmbH	Eckhard Lenski*
Samtec	(Corey Kimble)
Signal Integrity Software	Barry Katz, Walter Katz, Todd Westerhoff*
Sigrity	Brad Brim, Sam Chitwood, Raymond Chen, Jiangsong Hu, Li Li, Xianfeng Li, Lily Lou, Zhangmin Zhong
Synopsys	Ted Mido, Xuefeng Chen, Wenyun Gu, Jinghua Huang, Bo Liu, Qin (Kitty) Zhang
Teraspeed Consulting Group	Bob Ross*
Toshiba	Yoshihiro Hamaji
Xilinx	[David Banas]
ZTE	Xiaolin Chen, Yanbin Chen, Jinku Guan, Mai Hu, Nan Jiang, Fei Lu, Xiaorong Lu, Xianyu Meng, Junwei Zhang, Shunlin Zhu
Zuken	Michael Schaeder, Ralf Bruening, Motoyuki Matsuawa, Hirohiko Matsuawa

OTHER PARTICIPANTS IN 2009

3M	Kylin Chen, Shiang Yao
AET	Mikio Kiyono
Altera	Hui Fu
Apache	Yu Lin, Junyong Deng, Shulong Wu
ATE	Nob Tanak, Kenny Suga, Hideaki Endo, Ytaka Honda, Kotaro Iida, Hiroyuik Itabashi, Kenji Kagawa
Bayside Design	Stephen Coe, Elliot Nahas
Canon	Takamasa Sukuragi
Celestica	Fajiang Liu, Cao Wang, David Wu, Baoshu Xu, Fei Xue, Van Zhu
Circuit Spectrum	Zaven Tashjian
CST	Antonio Ciccomancini, Martin Schauem
Curtiss-Wright Embedded Computing	J. Phillips
Cybernet Systems	Golden Qian, Takayuki Tsuzura
EM Integrity	Guy de Burgh
EMC Corporation	Mingchang Wang, Vincent Yan
Elpida Memory	Masakazu Koso
Exar	Helen Nguyen
Freescale	Jon Burnett, Om Mandhama, Jesse Qin
Fujitsu Advanced Technologies	Shogo Fujimori, Hikoyuki Kawata
Fujitsu VLSI	Tetsuya Inoue
H3C	Huanyang Chen, Xiaoqun Li

Hua Symantec	Senliang Han
Ibiden	Kiyohisa Hasegawa
ICT Solutions	Steven Wong
Interactive Devices Technology (IDT)	Zhiguang (Andy) Li
IdemWorks	Michelangelo Bandinu
Japan Aviation Electronics Industry	Hiroaki Ikeda
JEITA EC Center	Atsushi Ishikawa
Juniper	Kevin Ko
Kineret Design	Ricardo Teliuteuesh
Kyocera Elco Corporation	Noniyuki Akai
LeCroy Corporation	Weidong (Derek) Hu, Scott Zhang
Leventhal Design & Communications	Roy Leventhal
Marvell	Mingzhen (Jane) Liu, Fang Lv, Yuyang Wang
Maxim Integrated Products	Ron Olisar
Mindspeed Technologies	Bobby Alkay
NEC Electronics Corp.	Takeshi Watanabe
NetLogic Microsystems	Eric Hsu
Politecnico di Torino	Igor Stievano
Sanmina SCI	Vladimir Drivanenko
Sedona International	Joe Socha
Shanghai ITG Information Technology	Rongsheng Yuan
Siemens	Manfred Maurer
Signal Consulting Group	Timothy Coyle, Nicole Mitchell
Signal Khobho	Atsuhito Noda
Simberian	Yuriy Shlepnev
Sony	Toshiro Honda, Yasuhiko Iguchi, Hiroshi Takamizawa
TechAmerica (GEIA)	(Chris Denham)
Texas Instruments	Pavani Jella
TDK	Yoshikazu Fujishiro
THine Electronics	Yohei Izhizone
Towa Electronics	Yoshikazu Suzuki
Vendor Chain International	Jing Lou
Xsigo Systems	Robert Badel
Zuken Support and Service	Seikou Go, Ryosuke Tokonami, Tomotaka Unose, Yin Yi
Independent	Ian Dodd

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	Meeting Number	Meeting Password
December 11, 2009	207 242 180	IBIS

For teleconference dial-in information, use the password at the following website:

https://cisco.webex.com/cisco/j.php?J=207242180

All teleconference 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, 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 participants.

CALL FOR PATENTS

Bob Ross called for any patents or pending patents related to the IBIS 3.2, IBIS 4.2, IBIS 5.0 or ICM 1.1 specifications. No patents were declared.

MEMBERSHIP UPDATE AND TREASURER'S REPORT

Bob Ross reported that we will likely finish the year with 30 paid members. We will probably pick up a few members next year. We also sold another parser license. This makes 6 parser purchases so far. Bob is making sure the parser purchases are properly credited to the IBIS account.

REVIEW OF MINUTES AND ARS

Bob Ross called for comments regarding the minutes of the October 30, 2009 IBIS Open Forum teleconference, the November 4, 2009 Asian IBIS Summit (China) and the November 6, 2009 Asian IBIS Summit (Japan). Randy Wolff noted that Hildesheim, the city in Germany that will host the SPI conference in 2010, was misspelled in the October 30 minutes. The minutes were approved with the noted change.

WEB PAGE UPDATES

Syed Huq reported a few updates. The home page added a link to the ibischk5 parser. He removed old members from the poster page. He changed the order of events and updated the DesignCon logo on the events page. Bob Ross mentioned that he has a list of changes he will submit to Syed. The FAQ page needs to be reviewed to change all references of GEIA to TechAmerica and update the IBIS parser price to $2500. Also, we will need to add a link to the new IBIS Quality document somewhere on the site.

MAILING LIST ADMINISTRATION

No update.

MODEL LIBRARY UPDATE

No update.

PRESS UPDATE

None.

MISCELLANY/ANNOUNCEMENTS

None.

OPENS FOR NEW ISSUES

None.

INTERNATIONAL/EXTERNAL ACTIVITIES

- DASC

No update. The DASC file and e-mail archive may be found at:

http://www.dasc.org/

- P1735 Encryption

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

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

-Conferences

The 7th International Workshop on Electromagnetic Compatibility of Integrated Circuits (EMC COMPO 2009) is November 17-20, 2009 in Toulouse, France. Lance Wang of IO Methodology planned to present a paper entitled "2-Pin-Pair Oriented Extraction Method for True Differential Pair Buffer Behavioral Modeling." Lance was unable to attend.

http://www.emccompo.org

TECHAMERICA STATUS

Bob Ross noted that there will be a new accounting system at TechAmerica in 2010.

IEC APPROVAL ACTIVITIES

Randy Wolff reported that the IEC meeting was September 28-30, 2009. He has not heard any update from Victor Berman on the status of IEC approval of the IBIS 4.2 specification.

SUMMIT STATUS

-China Summit Review

The meeting was held Wednesday, November 4 at the Four Points Hotel in Shanghai. Co-sponsors included Huawei Technologies, Agilent Technologies, Ansoft, Cadence Design, Cybernet Systems, Intel, IO Methodology, Mentor Graphics, SiSoft, Sigrity, Synopsys and ZTE Corporation.

Lance Wang shared a slide show of the event. He noted that this is the fifth year of the event, and it was a successful meeting. 112 people attended, not including vendor table staffers. There were 12 presentations on methods, quality, system integration, AMI, S-parameters and package models. Lance shared results of a survey. All responders found the meeting valuable. He also showed results of the question 'What was your favorite topic?' In the future, people would like to see the IBIS community focus on higher model quality, AMI improvements, more package model support, improved industry leadership, and support for higher speeds. The survey also asked for additional comments. Many people noted that the meeting was successful. Others added that they would like the meeting to be more interactive, have better technical focus, and see IC vendors pushed to provide more and better IBIS models. The presentation can be viewed at:

http://www.vhdl.org/pub/ibis/summits/nov09a/agenda_survey.pdf

Bob Ross noted that many of the presentations were in Chinese, and Lance helped with translation and running the meeting. The meeting was break-even financially. There is still some leftover money from previous years to use towards next years' meeting.

-Japan Summit Review

The meeting was held Friday, November 6 at the JEITA headquarters from 2:00 PM to 6:00 PM. Co-sponsors included Japan Electronics and Information Technology Industries Association (JEITA), ATE (Sigrity Distributor), Cadence and Zuken.

Bob Ross noted that 39 people attended. There were 10 presentations. One presentation needed to be stopped due to too much product promotion. The Open Forum tries to review all presentations ahead of time to catch this issue early, but not all presentations were seen in advance. However, all the presentations contained useful information and the attendance was greater than expected.

-DesignCon Summit Planning

The meeting is scheduled for Thursday, February 4, 2010. The agreement is signed between

IEC and IBIS. Bob Ross noted that the first announcement will go out in December. We already have three presentation proposals. We will probably not have a booth due to the extra fees associated with one.

-European Summit Planning

Eckhard Lenski noted that he thinks the summit will be held at the SPI conference in May in Hildesheim, Germany. Bob Ross noted that some members of the IBIS Committee are planning to attend.

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

Bob Ross reported that the group started discussing the IBIS Accuracy handbook and looked at a checklist associated with the existing IBIS Quality specification. Bob noted that the new IBIS Quality specification will be linked to the main IBIS page.

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

http://www.eda.org/ibis/quality_ver2.0/quality_ver2_0.pdf

IBIS MODEL REVIEW TASK GROUP

No update.

ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported that there was a consensus at the last meeting on the AMI flow that will be in the IBIS 5.1 specification. Walter Katz wrote a BIRD that is being reviewed now. The draft BIRD is on the ATM website.

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 reviewing proposed sparse matrix mapping syntax. There will be a meeting next Wednesday.

Task group material can be found at:

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

MODEL CONNECTION PROTOCOL AND OTHER PROPOSALS

Bob Ross reported that there was a proposal from Sigrity presented at the Asian summit meetings as well as in the Interconnect task group. The model connection protocol provides a way to link dies to package models to boards. We are considering helping to standardize the protocol through IBIS.

Bob also mentioned a subcircuit package connection proposal from Cadence, the Electrical Module Description the ATM group has discussed, as well as Touchstone file connection ideas.

NEW ISSUES

None.

TSCHK2 PARSER STATUS

Bob Ross noted that the alpha6 release of the parser has been sent to the parser committee. Bob thinks it looks very good, so it should be close to official release. This parser also checks Touchstone 1 files. There is also a flag that uses the parser to upgrade the file to Touchstone 2, although this doesn’t work for all situations. Bob hopes the parser will be released within a month.

IBISCHK5 BUG STATUS

Bob Ross noted that there are no new BUGs to report. There are six open BUGs right now. We might prepay a parser developer to fix BUGs if we have extra money to spend at the end of the year.

ICMCHK1 BUG STATUS

All BUGs have been closed. No new BUGs have been filed.

NEW ISSUES

Arpad Muranyi inquired about how do we feel about the ICM specification now that we’ve heard about all the other model connection protocols and modeling standards. Todd Westerhoff noted that he does not know of anyone using it. Arpad noted that there are still links missing to connect ICM files to IBIS, but he thought there was some EDA software implementing its features. Bob Ross knows of two vendors that have implemented it, but there is minimal usage. There are not enough models, and he is not sure what the tools can really do with existing models. Bob felt this was a fair question to ask on the IBIS reflector or si-list reflector.

NEXT MEETING

The next IBIS Open Forum teleconference will be held December 11, 2009 from 8:00 to 10:00 AM US Pacific Standard Time.

==

NOTES

IBIS CHAIR: Bob Ross (503) 246-8048, Fax: (503) 239-4400
bob@teraspeed.com
Staff Scientist, Teraspeed Consulting Group
10238 SW Lancaster Road
Portland, OR 97219

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

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: Anders Ekholm (46) 10 714 27 58, Fax: (46) 8 757 23 40
ibis-librarian@eda.org
Digital Modules Design, PDU Base Stations, Ericsson AB
BU Network
Färögatan 6
164 80 Stockholm, Sweden

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: Mike LaBonte (978) 936-2147
milabont@cisco.com
Signal Integrity Engineer, Cisco Systems
Mail Stop BXB01/1/
1414 Massachusetts Ave
Boxborough, MA 01719

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

IBIS CURRENT MEMBER VOTING STATUS

I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	October 30, 2009	November 4, 2009	November 6, 2009	November 20, 2009
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	Active	√	√	√	
Cisco Systems	User	Active	√	√		√
Ericsson	Producer	Active	√	√	√	√
Green Streak Programs	General Interest	Inactive				
Huawei Technologies	Producer	Inactive			√	
Hitachi ULSI Systems	Producer	Inactive		√		
IBM	Producer	Inactive	√			√
Infineon Technologies AG	Producer	Inactive				
Intel Corp.	Producer	Inactive		√		
IO Methodology	User	Active		√	√	√
LSI	Producer	Inactive	√			√
Mentor Graphics	User	Inactive				√
Micron Technology	Producer	Inactive	√			√
Nokia Siemens Networks	Producer	Inactive	√			√
Samtec	Producer	Inactive				
Signal Integrity Software	User	Inactive	√			√
Sigrity	User	Inactive		√		
Synopsys	User	Inactive		√		
Teraspeed Consulting	General Interest	Active	√	√	√	√
Toshiba	Producer	Inactive			√	
Xilinx	Producer	Inactive				
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.