



IBIS Open Forum Minutes

Meeting Date: **November 20, 2015**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2015 PARTICIPANTS

Altera	[David Banas], Masashi Shimanouchi, Hsinho Wu* Amanda Liao
ANSYS	Curtis Clark*, Miyo Kawata, Toru Watanabe
Applied Simulation Technology	Fred Balistreri, Norio Matsui
Avago Technologies	Minh Quach, Leif Zweidinger
Cadence Design Systems	Brad Brim*, Joshua Luo, Ken Willis, Joy Li, Ambrish Varma Aileen Chen, Lanbing Chen, Wei Dai, Zhiyu Guo Jinsong Hu, Rachel Li, Ping Liu, Yubao Meng Zuli Qin, Haisan Wang, Yitong Wen, Clark Wu Janie Wu, Benny Yan, Haidong Zhang, Wenjian Zhang Zhangmin Zhong, Kent Ho, Thunder Lay, Skipper Liang Jack WC Lin, Paddy Wu, Candy Yu, Morihiro Nakazato
Cisco Systems	David Siadat, Rockwell Hsu, Bidyut Sen, Xu Yan
CST	Stefan Paret, Matthias Troescher
Ericsson	Anders Ekholm, Zilwan Mahmod, Feng Shi Wenyan Xie, David Zhang
Huawei Technologies	Xiaoqing Dong, Peng Huang, Shuyao Liu Huichao Weng, Peng Xiao, Mala Yu, Cheng Zhang Gezi Zhang, Zhengyi Zhu
IBM	Adge Hawes*, Luis Armenta, Dale Becker
Infineon Technologies AG	Christian Sporrer
Intel Corporation	Michael Mirmak, Todd Bermensolo, Nhan Phan Gianni Signorini, Chunlei Guo, Shaowu Huang Denis Chen, Jimmy Hsu, Cucumber Lin, Ken Liu Thonas Su, Morgan Tseng
IO Methodology	Lance Wang*
Keysight Technologies	Radek Biernacki*, Pegah Alavi, Colin Warwick Jian Yang, Nicholas Tzou, Heidi Barnes, Dave Larson Kyla Thomas, Fangyi Rao, Yi Wang, Xianzhao Zhao Nina Lai, Ming-Chih Lin, Isabella Wan
Maxim Integrated Products	Mahbubul Bari, Don Greer, Joe Engert, Joe Rayhawk Yan Liang*
Mentor Graphics	Arpad Muranyi*, Ed Bartlett, Vladimir Dmitriev-Zdorov Kenji Kushima
Micron Technology	Randy Wolff*
Micron Memory Japan	Masayuki Honda, Toshio Oki, Tadaaki Yoshimura
Signal Integrity Software	Mike LaBonte*, Walter Katz*, Todd Westerhoff Mike Steinberger
Synopsys	Ted Mido*, Rita Horner, William Lau, Scott Wedge

	Michael Zieglmeier, Joerg Schweden, Xuefeng Chen
	Lianpeng Sang, Kevin Li*
Teraspeed Labs	Bob Ross*, Tom Dagostino
Toshiba	Yoshinori Fukuba, Masato Kanie, Fumuhide Noro
	Yui Shimizu, Atsushi Tomishima, Yasuki Torigoshi
Toshiba Information Systems	Mari Kuroki
Toshiba Memory Systems	Kenichi Kanehara
Toshiba Semiconductor & Storage	Yasunobu Umemoto
Xilinx	(Raymond Anderson)
ZTE Corporation	Tao Guo, Fengling Gao, Lili Wei, Bi Yi, Shunlin Zhu
Zuken	Michael Schaefer, Markus Buecker, Griff Derryberry
	Ralf Bruening, Kiyohisa Hasegawa, Yoshiaki Manage

OTHER PARTICIPANTS IN 2015

Abeism Corporation	Noboyuki Kiyota
Advanced Semiconductor Engineering	Jane Yan
Alpine Giken	Norio Mashiko
AMD	Tadashi Arai
Amphenol TCS	Kenneth Cheng
Apollo Giken Co.	Satoshi Endo, Naoya Iisaka, Toshiki Tamura
ASUSTek Computer	Weisheng Chiang, David Chou, Eric Hsieh, Landy Kao
	Peter Lee, Hank Lin, Vincent Lu, Bin-Chyi Tseng
ATE Service Corp.	Honda
Avago Technologies	David Carkeek, James Church
Avant Technology	Jyam Huang, Chloe Yang
Avnet Electronics Marketing	Hung-Yi Lin
Bayside Design	Elliot Nahas
Canon	Yuji Ishikawa, Syoji Matsumoto, Hitoshi Matsuoka
Casio Computer Co.	Yasuhisa Hayashi
Celestica	Sophia Feng, Lei Liu
Chinese Electronics Technology Company, Institute #52	Shujun Wei
Ciena	Kaisheng Hu
Compal Electronics	Rick Wu, Ian Yu
Continental Automotive	Felix Goelden, Markus Bebendorf, Sebastian Groener
	Stefanie Schatt
Cybernet Systems	Shinobu Kokuatsu, Takayuki Tsuzura
Denso Corp.	Osamu Seya
Digital Corp.	Hiroaki Fujita
eASIC	David Banas
Edadoc	Bruce Wu, H. Zhang
Eizo Corp.	Akinobu Nishio
Foxconn Technology	Daniel YT Lai, Mandy HY Su, Alex SY Tang

Freescall	Jon Burnett, Takahiro Sato, Koji Tsutsui
Fujitsu Advanced Technologies	Shogo Fujimori, Hikoyuki Kawata
Fujitsu Interconnect Technologies	Koji Akaishi, Hiromi Hayasaka, Masaki Kirinaka
	Akiko Tsukada
Fujitsu Semiconductor	Hirokazu Yamazaki
Galbi Research	Dave Galbi
Gigabyte Technology	Eric Chien
H3C Technologies	Xinyi Hu, Lingqin Kong, Haye Lee
Hamamatsu Photonics	Akahiro Inoguchi
Hewlett Packard	Passor Ho, Corey Huang
Himax Technologies	Renee Li, Josh Wu
Hitachi Information & Communication Engineering	Yoshifumi Takada
Hitachi	Yasuo Yahagi
Hitachi Kokusai Electric	Katsuya Konno
Hitachi ULSI Systems Co.	Sadahiro Nonoyama
Honeywell International	Molly Xu
IB-Electronics	Makoto Matsumuro
IDEMWorks	Alessandro Chinea, Michelangelo Bandinu
Independent	Tim Wang Lee
Instituto de Telecomunicações	Wael Dghais
Integrated Device Technology	Billy Chen
Jabil Design Services	Lurker Li
Japan Radio Co.	Takashi Sato
JVC Kenwood Corp.	Hidetoshi Suzuki
KEI Systems	Shinichi Maeda
Konica Minolta	Hideki Nomoto
Kyocera Circuit Solutions	Kiyoiko Kaiya
Lattice Semiconductor	Xu Jiang
Leading Edge	Pietro Vergine
Lenovo	John Lin, Alan Sun
Lite-On Technology	John Chuang, Dong-Ru Lyu
Marvell	Weizhe Li, Xike Liu, Fang Lv, Jie Pan, Banglong Qian
	Yuyang Wang
Mediatek	Delbert Liao
Megachips Corp.	Kousuke Egami
Meidensha Corp.	Liew Nelson
Microchip Technology	Jeffrey Chou
Missouri University of Science and Technology	Albert Ruehli
Modech	Yudai Ashi, Minoru Tanaka
Murata Manufacturing Co.	Satoshi Arai
Nanya Technology Corp.	Ching-Feng Chen, Chi-Wei Chen, Taco Hsieh
	Jordan Hsu, Andre Huang, Min Lun Lan
	Chih Wei Shen, Zuo Xin Ye

NEC Corp.	Atsushi Kato
NEC Engineering	Masahiko Kuroda
NEC Space Technologies	Syuiichi Koreeda, Akiko Murakami
Nikon Corporation	Manabu Matsumoto
Novatek Microelectronics	Willy Lin, Frank Pai
NXP	Yanbin Chen
Oki Electric Industry Co.	Atsushi Kitai
Olympus Corp.	Kazuhiro Sakamoto
Panasonic Corp.	Naoyuki Aoki, Yoshitaka Kawaguchi, Atsushi Nakano
Panasonic Industrial Devices, Systems and Technology Co.	Kazuki Wakabayashi
Pegatron Corp.	Aje Chang, Stanley Chu, Gavin Lin
Polar	Rick Cheng
Politecnico di Torino	Stefano Grivet-Talocia
Qualcomm Technologies	Senthil Nagarathinam, Kevin Roselle, Robin Han Irwin Xue
Quanta Computer	Eriksson Chuang, Randy Wang
Rambus	John Yan, Joohee Kim, Sujit Kumar Wendem Beyene
Raytheon	Joseph Aday
Renesas System Design Corp.	Kazunori Yamada
Ricoh Company	Yasuhiro Akita, Kazumasa Aoki, Miyoko Goto Yuji Hara, Hiroki Ikeda, Takuya Kitsukawa Nobuo Nakane, Seigo Tanaka, Yoshikazu Tadokoro Jyunko Tanaguchi
Rohm Co.	Asuma Imamura, Toshiro Okubo, Noboru Takizawa
SAE International	Chris Denham, Logen Johnson
SAIC Motor	Weng Yang
Sanei Hytechs Co.	Hiroyuki Kai
Saxa	Takayuki Ito
Seiko Epson Corp.	Ryoichi Okada
Shanghai Faith Information	Miao He, Bihui Shao, Shuai Wang
Shanghai Lefu Educational Technology	Peter Sun, Leo Yi
Siemens AG	Boris Kogan, Michael Flint
Silvaco Japan Co.	Atsushi Hasegawa, Yoshinori Kanno Yoshihiko Yamamoto
Simberian	Yuriy Shlepnev
SMICS	Xuejiao Qi
Socionext	Shinichiro Ikeda, Motoaki Matsumura, Megumi Ono Yumiko Sugaya, Yukiko Tanaka, Kazuo Toda Kohichi Yasuda
Sohwa & Sophia Technologies	Tomoki Yamada
Sony LSI Design	Toru Fujii, Naoyuki Morinaga, Satoshi Tago
Spreadtrum Communications	Linping Chen, Yanbiao Chu, Lily Dai, Junyong Deng

Sunplus Technology	Steven Guo, Weiquan Jia, Xiaobin Lu, Mengying Ma
Technische Universität	Ye Ping, Zheng Qin, Baoqin Su, Tim Wang, Nikki Xie
Hamburg-Harburg	Honggiu Xu, Eric Zhang
Teledyne LeCroy	Forest Hsu, Yi-Tzeng Lin
TFF Tektronix Comp.	Jan Preibisch
Tokyo Kogyo Boyeki Shokai	Yanan Cui, Derek Hu, Cici Wang, Yifeng Wu
Torex Semiconductor	Katsuhiko Suzuki
University of Illinois	Tadanori Kanemura
Via CPU	Hiroyuki Nakano
VIA Labs	Jose Schutt-Aine
Vitesse	Jonathan Wei
Winbond Electronics	Sheng-Yuan Lee
Wiwynn Corp.	Siris Tsang
Xpeedic Technology	Yu-Min Hou, Albert Lee
	Scott CH Lee, Kevin TK Wang
	Wenliang Dia, Qionghui Gui, Zhouxiang Su
	Mingcan Zhao
Zhejiang Uniview Technologies	Busen Cai, Weiqi Chen
ZI Consulting	Iliya Zamek

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 18, 2015	205 475 958	IBIS

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

<https://ciscosales.webex.com/ciscosales/j.php?J=205475958>

All teleconference meetings are 8:00 a.m. to 9:55 a.m. 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

Kevin Li of Synopsys introduced himself. He is in the SI/PI group doing work involving creating IBIS-AMI models and IBIS models. These models cover SerDes and consumer PHY products.

Randy Wolff declared that a quorum was reached and the meeting could begin.

CALL FOR PATENTS

Mike LaBonte called for declaration of any patents or pending patents related to the IBIS 3.2, IBIS 4.2, IBIS 5.1, IBIS 6.1, Touchstone 2.0, IBIS-ISS 1.0 or ICM 1.1 specifications. No patents were declared.

REVIEW OF MINUTES AND ARS

Randy Wolff called for comments regarding the minutes of the October 23, 2015 IBIS Open Forum teleconference. Radek Biernacki moved to approve the minutes. Curtis Clark seconded the motion. There were no objections. Randy called for comments regarding the minutes of the October 28, 2015 IBIS Open Forum Summit at EPEPS. Randy noted that Bob Ross had commented by email that "PAM-4" should be changed to "PAM4". Bob moved to approve the minutes with the noted change. Lance Wang seconded the motion. There were no objections.

Randy reviewed ARs from the previous meeting.

1. Mike LaBonte will rename "Working Directories" as "Site Map" on the website [AR].
Mike reported that he did this during the last meeting.

ANNOUNCEMENTS, CALL FOR ADDITIONAL AGENDA ITEMS

None.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Bob Ross reported that membership stands at 24 members and the treasury balance is \$70,972 including a recent sponsorship payment. There are a few payments to make for the balance of the Sherwood hotel payment for Taipei and the website charges. Mike LaBonte noted he already received a payment from SAE of \$851.28 for the website charges. Bob has an AR with SAE to provide a membership list of people to invoice for 2016 membership dues [AR]. Bob noted we need to discuss if the membership for 2016 will stay at \$900. Also, Rita Gerber, our SAE financial contact is retiring. Phyllis Gross is her replacement. Bob will begin working with her for invoicing. Bob noted we should be up to date with SAE on financials except for the previously mentioned payments as well as a payment to the parser developer. Lance Wang noted that we still owe something to the Parkyard hotel in Shanghai. We are waiting for a payment from Cadence directly to the hotel before finding out the final bill. Bob noted that we essentially broke even on all the last four summits.

WEBSITE ADMINISTRATION

Mike LaBonte reported that he made a few changes that relate to items to be discussed in the rest of the meeting. He noted that he is going to take down the contents at eda.org and set it up to redirect to the new website. Sometime later this year eda.org will shut down permanently.

MAILING LIST ADMINISTRATION

Curtis Clark reported that there have been some email address changes. Things are generally going smoothly with Freelists. He has not looked further into using the available ibis.org email addresses.

LIBRARY UPDATE

Mike LaBonte reported that the library page has been updated by Anders Ekholm. The new page is wrapped in the IBIS frame. It also uses a shaded table format. All the links have been checked. Yan Liang asked if he should inform the IBIS librarian if updates are needed. Mike encouraged this.

INTERNATIONAL/EXTERNAL ACTIVITIES

- Conferences

None.

- Press Update

None.

SUMMIT PLANNING AND STATUS

- EPEPS Summit Review

EPEPS took place October 25-28, 2015 in San Jose, CA. IBIS hosted a Summit meeting on Wednesday, October 28, 2015 in the afternoon at the DoubleTree by Hilton hotel. Mike LaBonte thanked Bob Ross for taking the lead in organizing the Summit. Bob Ross reported that the event was very successful. He planned for about 20 attendees and there were about 34 attendees. He invited many EPEPS attendees. We received an invitation to host a Summit in conjunction with EPEPS 2016 in San Diego, CA. Bob thanked the sponsors Keysight Technologies, Mentor Graphics and Synopsys. Walter Katz added that about 300 people total attended EPEPS. Mike added that we got good support from EPEPS including advertising of the IBIS Summit in the EPEPS agenda.

- Asian IBIS Summit (Shanghai) Review

The Shanghai meeting was held Monday, November 9, 2015 at the Parkyard hotel. Huawei Technologies was the major sponsor along with co-sponsors Cadence Design Systems, IO Methodology, Keysight Technologies, Synopsys, Teledyne LeCroy and ZTE Corporation. Mike reported that we had 94 attendees. He thought it was a great meeting overall. About half the presentations were in English and half in Chinese. The discussion and questions were better for the presentations in Chinese. There was good discussion after the presentations.

During a lunch conversation, some of the vendor companies expressed interest in expanding the Summit. Most other IBIS Summits are co-located with other conferences. The vendors are interested in having a greater presence. There is interest in having another entity host an event co-located with the IBIS Summit. Mike also thanked Bob for his help organizing all the Summits in Asia.

Lance Wang noted that during the discussion time, they polled how many people were using IBIS-AMI models and the Touchstone 2 format. A number of companies in China are using IBIS-AMI models. Issues they have are quality of the models. People were asking how to validate and correlate models with the real system. A Marvell attendee shared how Marvell makes IBIS-AMI models. The process they have is to ask the algorithm designers to make the IBIS-AMI models. The designer is responsible for correlating the results with the systems. An Ericsson attendee commented they have a process to validate the models they receive, however they are ok to do the IBIS-AMI TX models, but it is hard to correlate the RX models. IBIS-AMI models give the system designer opportunity to work on simulation, however no companies use IBIS-AMI models for signoff of SerDes systems.

Bob asked Lance how many vendor tables there were. Lance noted there were 4.

- Asian IBIS Summit (Taipei) Review

The Taipei meeting was held Friday, November 13, 2015 at the Sherwood hotel. Mike noted there were 73 attendees. He thought the meeting went well. There were some of the same presentations as the Shanghai Summit. There were three vendor tables.

Lance noted that fewer companies in Taipei were using IBIS-AMI models than in Shanghai. There were many questions about correlation and validation of standard IBIS models. There were also comments that the IBIS cookbook needs to be updated, including for power aware models and IBIS-AMI models.

Bob thanked the sponsors IO Methodology, Keysight Technologies and Synopsys.

- Asian IBIS Summit (Tokyo) Review

The Tokyo meeting was held Monday, November 16, 2015. Mike reported that in the morning before the Summit there was an IBIS workshop on basic IBIS with about 90 attendees. He noted there is an IBIS Promotions Working Group within JEITA that helped to organize the event. Mike commented that the relationship between IBIS and JEITA is good.

Bob thanked the co-sponsors ANSYS Corporation, Cadence Design Systems, Cybernet Systems, Keysight Technologies, Mentor Graphics Corporation, Toshiba and Zuken.

- DesignCon 2016 IBIS Summit

DesignCon will be held January 19-21, 2016. Friday, January 22, 2016 is scheduled for the Summit meeting. Mike reported that the meeting room will be in the Hyatt in the Bayshore room. The final agreement with UBM has been signed. Keysight is a sponsor. Bob noted that the first announcement will go out today.

- European IBIS Summit at SPI 2016

An IBIS Summit will be co-hosted with the IEEE Workshop on Signal and Power Integrity (SPI).

The Summit will take place on May 11, 2016 in Turin, Italy. Mike noted that some logistics are being worked through for getting an invoice and making payment.

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.

QUALITY TASK GROUP

Mike LaBonte reported that the group is meeting on Tuesdays at 8:00 a.m. PT. The group has not met in a while due to the Summits travel. He noted that ibischk 6.1.0 is about to be released and a user guide update is needed for it. An updated spreadsheet of messages is also needed.

The ibischk6 user guide work in progress can be reviewed at:

http://www.ibis.org/ibischk6/ibischk_6.0.0_UserGuide_wip1.pdf

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

http://www.ibis.org/quality_wip/

ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported that the group is meeting regularly on Tuesdays at 12:00 p.m. PT. December 1, 2015 will be the next meeting. The group is discussing the new Redriver flow BIRD and the ground cleanup in the specification. He requested those attending the meeting to familiarize themselves on the ground issues in the specification to help with the cleanup.

Task group material can be found at:

http://www.ibis.org/macromodel_wip/

INTERCONNECT TASK GROUP

Arpad Muranyi reported that the group is meeting on Wednesdays at 8:00 a.m. PT. The next meeting is December 2, 2015. The last meeting was short due to the absence of Michael Mirmak. Mike LaBonte noted that there was a presentation from Walter Katz on the interconnect modeling proposal given in the Summits. There was a question about modeling of chip capacitors as well as modeling of multi-chip packages. Mike noted that the chip capacitors could be modeled as part of the package. Walter commented that multi-chip packages will be modeled in an extension of EBD.

Task group material can be found at:

http://www.ibis.org/interconnect_wip/

NEW ADMINISTRATIVE ISSUES

- Second revision of IBIS Policies and Procedures

Mike LaBonte reported that the draft Policies and Procedures update is on the website for review. The document can be found at:

<http://www.ibis.org/policies/>

Mike noted that we do need a vote on the IBIS dues, so we should do this in the next meeting. Bob Ross added that we are getting some more financial information from SAE next week. There is probably no reason to make a change to the dues amount.

Bob moved to schedule a vote on the dues amount in the next Open Forum teleconference. Radek Biernacki seconded the motion. There were no objections.

BIRD179: NEW IBIS-AMI RESERVED PARAMETER SPECIAL_PARAM_NAMES

Arpad Muranyi noted that there has been no new discussion on the BIRD.

Walter Katz moved to vote on the BIRD in the next Open Forum meeting. Arpad Muranyi seconded the motion. There were no objections.

BIRD125.1: MAKE IBIS-ISS AVAILABLE FOR IBIS PACKAGE MODELING

Discussion was tabled.

BIRD128.2: ALLOW AMI_PARAMETERS_OUT TO PASS AMI_PARAMETERS_IN DATA ON CALLS TO AMI_GETWAVE

Discussion was tabled.

BIRD145.3: CASCADING IBIS I/O BUFFERS WITH [EXTERNAL CIRCUIT]S USING THE [MODEL CALL] KEYWORD

Discussion was tabled.

BIRD147: BACK-CHANNEL SUPPORT

Discussion was tabled.

BIRD158.3: AMI TOUCHSTONE ANALOG BUFFER MODELS

Discussion was tabled.

BIRD161.1: SUPPORTING INCOMPLETE AND BUFFER-ONLY [COMPONENT] DESCRIPTIONS

Discussion was tabled.

BIRD163: INSTANTIATING AND CONNECTING [EXTERNAL CIRCUIT] PACKAGE MODELS WITH [CIRCUIT CALL]

Discussion was tabled.

BIRD164: ALLOWING PACKAGE MODELS TO BE DEFINED IN [EXTERNAL CIRCUIT]

Discussion was tabled.

BIRD165: PARAMETER PASSING IMPROVEMENTS FOR [EXTERNAL CIRCUIT]S

Discussion was tabled.

BIRD166: RESOLVING PROBLEMS WITH REDRIVER INIT FLOW

Discussion was tabled.

IBISCHK6 PARSER AND BUG STATUS

Bob noted that ibischk 6.1.0 source code was received before the last meeting, but it was decided to test the code further before release. Bob has checked the code and found several bugs. He recommends releasing the 6.1.0 release, noting several bugs to be fixed.

BUG151, BUG155, BUG159, BUG160, BUG161 and BUG162 have been fixed in the ibischk 6.1.0 code. They will be documented as closed as of today.

Mike LaBonte noted that Michael Mirmak has encouraged use of bug tracker software such as Mantis. We might want to move to something like this in the future.

Mike asked about BUG163, which was reported by the parser developer. Bob noted that the parser developer has fixed this bug in his code, but he is waiting on the release of that code until further bugs can be looked at.

Bob summarized the new bug, BUG164. Radek Biernacki commented that there should be a warning issued, not an error. Bob noted that he thought this case is legal in IBIS 6.0. Radek noted that Usage Dep was not legal in IBIS 6.0. It was introduced in IBIS 6.1. Bob thought the 6.1 parser should continue to issue an error if Usage Dep is in an IBIS 6.0 file. After further discussion Bob determined that this was not a bug, and the bug should be classified as not a bug. After further discussion, it was determined to still be a bug. Bob moved to classify the bug as Moderate severity, Medium priority and Open status. Walter Katz seconded the motion. There were no objections.

Bob summarized BUG165. Walter commented that this is a useful check for the parser to perform. Walter moved to classify the bug as Moderate severity, Medium priority and Open status. Bob seconded the motion. There were no objections.

Bob summarized BUG166. The .ami extension required for an [Algorithmic Model] file is not checked. Walter moved to classify the bug as Moderate severity, Medium priority and Open status. Bob seconded the motion. There were no objections.

Bob summarized BUG167. Some errors are not being reported for PAM4 models with thresholds either missing or incorrect. Walter moved to classify the bug as Moderate severity, Medium priority and Open status. Bob seconded the motion. There were no objections.

Radek and Walter thanked Bob for his detailed testing of the new parser.

Mike noted that there are no cases where the parser calls a good IBIS model bad. Bob moved to release the 6.1.0 parser on the website. Walter seconded the motion. There were no objections.

Bob will send the parser source code to the parser licensees [AR]. Mike will update the bug page with the classifications of BUG164, BUG165, BUG166 and BUG167 [AR].

Bob discussed payment of the parser developer. Bob moved to ask the parser developer to send an invoice for payment. Walter seconded the motion. There were no objections.

Radek asked if we should expect an update to the parser to fix the new bugs. Bob responded that we do expect an update to address the new bugs.

NEW TECHNICAL ISSUES

None.

NEXT MEETING

The next IBIS Open Forum teleconference meeting will be held December 18, 2015. A vote is scheduled on the IBIS dues for 2016 and on BIRD179. The following IBIS Open Forum teleconference meeting will be held January 8, 2016.

Radek Biernacki moved to adjourn. Arpad Muranyi seconded the motion.

NOTES

IBIS CHAIR: Mike LaBonte

mlabonte@sisoft.com

IBIS-AMI Modeling Specialist, Signal Integrity Software

6 Clock Tower Place, Suite 250

Maynard, MA 01754

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

rrwolff@micron.com

Principal Engineer, Silicon SI Group Lead, Micron Technology, Inc.
8000 S. Federal Way
P.O. Box 6, Mail Stop: 01-711
Boise, ID 83707-0006

TREASURER: Bob Ross (503) 246-8048

bob@teraspeedlabs.com

Engineer, Teraspeed Labs
10238 SW Lancaster Road
Portland, OR 97219

LIBRARIAN: Anders Ekholm (46) 10 714 27 58, Fax: (46) 8 757 23 40

ibis-librarian@ibis.org

Digital Modules Design, PDU Base Stations, Ericsson AB
BU Network
Färögatan 6
164 80 Stockholm, Sweden

WEBMASTER: Mike LaBonte

mlabonte@sisoft.com

IBIS-AMI Modeling Specialist, Signal Integrity Software
6 Clock Tower Place, Suite 250
Maynard, MA 01754

POSTMASTER: Curtis Clark

curtis.clark@ansys.com

ANSYS, Inc.
150 Baker Ave Ext
Concord, MA 01742

This meeting was conducted in accordance with ANSI guidance.

All inquiries may be sent to ibis-info@freelists.org. Examples of inquiries are:

- To obtain general information about IBIS.
- To ask specific questions for individual response.
- To subscribe to the official ibis@freelists.org and/or ibis-users@freelists.org email lists (formerly ibis@eda.org and ibis-users@eda.org).
- To subscribe to one of the task group email lists: ibis-macro@freelists.org, ibis-interconn@freelists.org, or ibis-quality@freelists.org.
- To inquire about joining the IBIS Open Forum as a voting Member.

- To purchase a license for the IBIS parser source code.
- To report bugs or request enhancements to the free software tools: ibischk6, tschk2, icmchk1, s2ibis, s2ibis2 and s2iplt.

The BUG Report Form for ibischk resides along with reported BUGs at:

<http://www.ibis.org/bugs/ibischk/>
<http://www.ibis.org/bugs/ibischk/bugform.txt>

The BUG Report Form for tschk2 resides along with reported BUGs at:

<http://www.ibis.org/bugs/tschk/>
<http://www.ibis.org/bugs/tschk/bugform.txt>

The BUG Report Form for icmchk resides along with reported BUGs at:

<http://www.ibis.org/bugs/icmchk/>
http://www.ibis.org/bugs/icmchk/icm_bugform.txt

To report s2ibis, s2ibis2 and s2iplt bugs, use the Bug Report Forms which reside at:

<http://www.ibis.org/bugs/s2ibis/bugs2i.txt>
<http://www.ibis.org/bugs/s2ibis2/bugs2i2.txt>
<http://www.ibis.org/bugs/s2iplt/bugspl.txt>

Information on IBIS technical contents, IBIS participants and actual IBIS models are available on the IBIS Home page:

<http://www.ibis.org/>

Check the IBIS file directory on ibis.org for more information on previous discussions and results:

<http://www.ibis.org/directory.html>

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

IBIS – SAE STANDARDS BALLOT VOTING STATUS

Organization	Interest Category	Standards Ballot Voting Status	November	November	November	November
			9, 2015	13, 2015	16, 2015	20, 2015
Altera	Producer	Inactive	X	-	-	X
ANSYS	User	Active	-	-	X	X
Applied Simulation Technology	User	Inactive	-	-	-	-
Avago Technologies	Producer	Inactive	-	-	-	-
Cadence Design Systems	User	Active	X	X	X	X
Cisco Systems	User	Inactive	X	-	-	-
CST	User	Inactive	-	-	-	-
Ericsson	Producer	Active	X	X	X	-
Huawei Technologies	Producer	Inactive	X	-	-	-
IBM	Producer	Inactive	-	-	-	X
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Intel Corp.	Producer	Inactive	-	X	-	-
IO Methodology	User	Active	X	X	X	X
Keysight Technologies	User	Active	X	X	X	X
Maxim Integrated Products	Producer	Inactive	-	-	-	X
Mentor Graphics	User	Active	-	-	X	X
Micron Technology	Producer	Active	-	-	X	X
Signal Integrity Software	User	Active	X	X	X	X
Synopsys	User	Inactive	X	-	-	X
Teraspeed Labs	General Interest	Inactive	-	-	-	X
Toshiba	Producer	Inactive	-	-	X	-
Xilinx	Producer	Inactive	-	-	-	-
ZTE	User	Inactive	X	-	-	-
Zuken	User	Inactive	-	-	X	-

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 SAE 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.