



IBIS Open Forum Minutes

Meeting Date: **March 9, 2018**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2018 PARTICIPANTS

ANSYS	Curtis Clark*
Applied Simulation Technology	(Fred Balistreri)
Broadcom	(Yunong Gan)
Cadence Design Systems	Brad Brim, Ken Willis, Ambrish Varma
Cisco Systems	Stephen Searce, Cassie Yan, Baosh Xu
CST	Stefan Paret
Ericsson	Anders Ekholm, Zilwan Mahmod, Guohua Wang
GLOBALFOUNDRIES	Steve Parker*
Huawei Technologies	(Hang (Paul) Yan)
IBM	Greg Edlund
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Hsinho Wu*, Michael Mirmak, Nilesch Dattani Fernando Mendoza Hernandez, Varun Gupta Subas Bastola, Hansel Dsilva
IO Methodology	Lance Wang
Keysight Technologies	Radek Biernacki*, Ming Yan, Heidi Barnes Pegah Alavi
Maxim Integrated	Joe Engert, Yan Liang
Mentor, A Siemens Business	Arpad Muranyi*, Weston Beal, Raj Raghuram Carlo Bleu, Mikael Stahlberg, Yasushi Kondou Vladimir Dmitriev-Zdorov
Micron Technology	Randy Wolff*, Justin Butterfield
NXP	(John Burnett)
Qualcomm	Kevin Roselle, Tim Michalka
Raytheon	Joseph Aday
SiSoft	Mike LaBonte*, Walter Katz*, Todd Westerhoff
Synopsys	Ted Mido*, Adrien Auge*, Scott Wedge
Teraspeed Labs	Bob Ross*
Xilinx	Ravindra Gali
ZTE Corporation	(Shunlin Zhu)
Zuken	Michael Schaefer, Takayuki Shiratori

OTHER PARTICIPANTS IN 2018

Google	Zhiping Yang
Haskware	David Banas

John Baprawski, Inc.
KEI Systems
Lattice Semiconductor
OmniVision
Ricoh
RITA Electronics Ltd.
SAE-ITC
Signal Metrics
Socionext
SPISim
Stanford University
Toshiba

John Baprawski
Shinichi Maeda
Dinh Tran, Maryam Shahbazi
Sirius Tsang
Kazuki Murata
Kenichi Higashiura, Hiroyuki Motoki
(Jose Godoy)
Ron Olisar
Megumi Ono
Wei-hsing Huang
Tom Lee
Yasuki Torigoshi, Yoshinori Fukuba

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
March 23, 2018	624 227 121	IBISfriday11

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

<http://tinyurl.com/y7yt7buz>

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.

NOTE: "AR" = Action Required.

INTRODUCTIONS AND MEETING QUORUM

Mike LaBonte 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

Mike LaBonte called for comments on the minutes of the February 16, 2018 IBIS Open Forum teleconference. Curtis Clark moved to approve the minutes. Walter Katz seconded the motion. There were no objections.

There were no ARs to review.

ANNOUNCEMENTS, CALL FOR ADDITIONAL AGENDA ITEMS

Mike LaBonte noted that he did not send out the email solicitation for votes on BIRD193 or list the BIRD as scheduled for a vote in the meeting agenda. Ted Mido did send in a vote by email.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Bob Ross reported that we are at 26 members carried forth from 2017. Eleven membership payments have come in for 2018. Another renewal and payment has not been formally recorded yet. The 2018 balance has grown to \$4,572. We expect more membership renewals.

WEBSITE ADMINISTRATION

Mike LaBonte reported there have been no significant changes to the website. He added that Abdulrahman Rafiq was involved in the IBIS website at one point. He has a company that does web development and reached out to Mike to mention that he is available for website work.

MAILING LIST ADMINISTRATION

Curtis Clark reported there has been usual maintenance. Mike LaBonte noted that sometimes there are cross postings with emails going to Interconnect and ATM task group lists. When people reply that are not members of both lists, then the email may not go to everyone. This leads to warnings that Curtis will see.

LIBRARY UPDATE

Mike LaBonte noted that the library page was updated recently by Anders Ekholm. Anders asked to be contacted if anyone finds any issues.

INTERNATIONAL/EXTERNAL ACTIVITIES

- Conferences

SPI2018 – the 22nd IEEE Workshop on Signal and Power Integrity will be held in Brest, France on May 22-25, 2018. An IBIS Summit will be held after the event. More information is available at:

<https://spi2018.sciencesconf.org/>

- Press Update
None.

- Related standards

IEC 63055/IEEE 2401, JEITA “LPB”

Mike noted ongoing activity with IEEE DASC. There have been discussions about what could be accomplished if IBIS maintained a relationship with DASC. Mike is convening a board meeting to discuss the matter.

SUMMIT PLANNING AND STATUS

- European IBIS Summit at SPI 2018

SPI 2018 will be held in Brest, France on May 22 through May 25, 2018. An IBIS Summit will be held the afternoon of Friday, May 25, 2018. Bob Ross noted that notifications should be sent out late March.

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. Meetings have been short recently due to minimal discussion on IBISCHK needed.

The IBISCHK6 user guide work in progress can be reviewed at:

http://www.ibis.org/ibischk6/ibischk_6.1.4_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. The group has been discussing ground related BIRD158 issues in connection with the Interconnect BIRD189 to make the BIRDS compatible in terms of how the reference terminals are connected. He started a new BIRD draft to change BIRD158 regarding how ground is mentioned to be compatible with BIRD189.

Task group material can be found at:

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

INTERCONNECT TASK GROUP

Mike LaBonte reported that the group is meeting at 8:00 a.m. PT on Wednesdays. The Friday Editorial task group time slot is also used on occasion. The focus has been finishing BIRD189. BIRD189.5 is in progress. There is a proposal in discussion from Bob on relaxation of some rail

terminal rules.

Task group material can be found at:

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

EDITORIAL TASK GROUP

Mike LaBonte reported that this group remains suspended. Should there be any official document to review such as IBIS 7.0, the task group will resume meetings on Fridays when there is no Open Forum teleconference. Watch the editorial reflector for announcement of meetings or documents to review.

Task group material can be found at:

http://www.ibis.org/editorial_wip/

NEW ADMINISTRATIVE ISSUES

None.

BIRD193: FIGURE 29 CORRECTIONS

Mike LaBonte noted this BIRD should be scheduled for a vote based on the previous meeting vote. A motion for a vote can be solicited.

Bob Ross proposed postponing for the additional reason that the vote schedule was not noted at the bottom of the previous meeting minutes.

Bob moved to schedule the BIRD for a vote at the next IBIS Open Forum meeting. Radek Biernacki seconded the motion. There were no objections.

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

Discussion was tabled.

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

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.

BIRD166.4: RESOLVING PROBLEMS WITH REDRIVER INIT FLOW

Discussion was tabled.

BIRD181.1: I-V TABLE CLARIFICATIONS

Discussion was tabled.

BIRD189.4: INTERCONNECT MODELING USING IBIS-ISS AND TOUCHSTONE

Discussion was tabled.

BIRD190: CLARIFICATION FOR REDRIVER FLOW

Discussion was tabled.

IBISCHK6 PARSER AND BUG STATUS

Bob Ross reported there are no bugs being worked on nor a parser update. Mike asked if the label of IBISCHK6 should drop the “6” version. Bob thought this could be done or label as both IBISCHK6 and IBISCHK7.

NEW TECHNICAL ISSUES

None.

NEXT MEETING

Randy Wolff noted that March 30 is a holiday for many companies. Bob Ross moved to hold the next meeting on March 23. Randy seconded the motion. There were no objections.

The next IBIS Open Forum teleconference meeting will be held on March 23, 2018. A vote on BIRD193 is scheduled.

Bob moved to hold the following meeting on April 13 and shift the three-week schedule to align. Randy seconded the motion. There were no objections. The following IBIS Open Forum teleconference meeting is scheduled on April 13, 2018.

Curtis Clark asked about the vote solicitation email schedule for BIRD193 due to the time shift of the next meeting. Bob noted that the email should go out at least one week before the next meeting.

Curtis Clark moved to adjourn. Ted Mido seconded the motion. The meeting adjourned.

=====

NOTES

IBIS CHAIR: Mike LaBonte

mlabonte@sisoft.com

IBIS-AMI Modeling Specialist, SiSoft
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, SiSoft
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 info@ibis.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.

SAE STANDARDS BALLOT VOTING STATUS

Organization	Interest Category	Standards Ballot Voting Status	January 26, 2018	February 2, 2018	February 16, 2018	March 9, 2018
ANSYS	User	Active	X	-	X	X
Applied Simulation Technology	User	Inactive	-	-	-	-
Broadcom Ltd.	Producer	Inactive	-	-	-	-
Cadence Design Systems	User	Inactive	X	X	-	-
Cisco Systems	User	Inactive	-	X	-	-
CST	User	Inactive	-	X	-	-
Ericsson	Producer	Inactive	-	X	-	-
GLOBALFOUNDRIES	Producer	Active	X	X	X	X
Huawei Technologies	Producer	Inactive	-	-	-	-
IBM	Producer	Inactive	-	X	-	-
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Intel Corp.	Producer	Active	X	X	X	X
IO Methodology	User	Active	X	X	X	-
Keysight Technologies	User	Active	X	X	X	X
Maxim Integrated	Producer	Inactive	-	X	-	-
Mentor, A Siemens Business	User	Active	-	X	-	X
Micron Technology	Producer	Active	X	X	X	X
NXP	Producer	Inactive	-	-	-	-
Qualcomm	Producer	Inactive	-	X	-	-
Raytheon	User	Inactive	-	X	-	-
SiSoft	User	Active	X	X	X	X
Synopsys	User	Active	X	X	X	X
Teraspeed Labs	General Interest	Active	X	X	X	X
Xilinx	Producer	Inactive	-	X	-	-
ZTE Corp.	User	Inactive	-	-	-	-
Zuken	User	Inactive	-	X	-	-

Criteria for SAE 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 standards 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.