



IBIS Open Forum Minutes

Meeting Date: **July 12, 2024**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2024 PARTICIPANTS

Altair	(JuneSang Lee)
AMD (Xilinx)	(Bassam Mansour)
Analog Devices	Jermaine Lim-Abroguena, Toni Rose Racelis, Christine Bernal, Prachi Shukla, Aprille Hernandez-Loyola, Francis Ian Calubag, Marvin Sinues, Vincent Paul Sabillo, Esther Grace Falate, Keshav Mehrotra
Ansys	Curtis Clark*, Marco Occhiali
Ansys Japan	Satoshi Endo
Applied Simulation Technology	(Fred Balistreri)
Aurora System	(Dian Yang), Raj Raghuram
Broadcom	(Yunong Gan)
Cadence Design Systems	Kyle Lake, Ambrish Varma, Jared James, John Phillips, Kristoffer Skytte
Celestica	(Sophia Feng)
Cisco Systems	(Stephen Searce), Hong-Man Wu
Dassault Systemes	Stefan Paret, David Duque
GE Healthcare Technologies	(Balaji Sankarshanan)
Google	(Hanfeng Wang)
Huawei Technologies	(Hang (Paul) Yan)
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Michael Mirmak*, Hsinho Wu*, Kinger Cai, Chi-te Chen
Keysight Technologies	Pegah Alavi, Ming Yan, David Banas, Fangyi Rao, HeeSoo Lee, Heidi Barnes
Marvell	Steven Parker
MathWorks	Graham Kus*, Walter Katz
Micron Technology	Justin Butterfield
MST EMC Lab	Chulsoon Hwang*, Zhiping Yang*, Jiahuan Huang
SI-Clarity	Doug Burns
Siemens EDA	Weston Beal*, Arpad Muranyi*, Randy Wolff*, Matt Leslie, Scott Wedge, Todd Westerhoff, Zhichao Deng
STMicroelectronics	Anil-Kumar Dwivedi, Bhupendra Singh, Harsh Saini, Hemant Kumar Gangwar, Manda Padma Sindhuja, Manish Bansal, Nitin Kumar, Olivier Bayet, Pawan Verma, Pranav Singh, Rahul Kumar, Raushan Kumar, Shivam Soni, Gaurav Goel, Manisha Bisht, Charul Sharma, Manish Bansal, Mihir Pratap
Synopsys	Ted Mido*, (Andy Tai), Luis Simoes, Pedro Monteiro, Luis Neves, António Eustáquio, Diogo Coelho, Nuno Lima, Alexandre Brito
ZTE Corporation	(Zhongmin Wei), (Shunlin Zhu)
Zuken	(Ralf Brüning), Markus Bucker
Zuken USA	Lance Wang*

OTHER PARTICIPANTS IN 2024

Alphawave Semi	Adrien Auge, Todd Bermensolo
Anacom	Filipe Saraiva
Applied Logix	Dan Chirpich
Ciena	Hugues Tournier
Hirel Logic	Jason Riddley
HRL Laboratories	John Carlson
Hitachi Ltd.	Yutaka Uematsu
KEI Systems	Shinichi Maeda
KT Smart Future-Creations	Keita Miyasato
Meta	Ashkan Hashemi
Northrop Grumman Corp.	Will McCaffrey
SAE ITC	Tammy Patton*, Rich Demary
Samsung Electronics	Jun-Bae Kim
Signal Edge Solutions	Benjamin Dannan
Si-Guys	Donald Telian
Socionext America	Futoshi Terasawa
Teraspeed Labs	[Bob Ross]
Toyobo Co.	Saki Kawano
University of Illinois Urbana-Champaign	Jose Schutt-Aine

In the list above, attendees present at the meeting are indicated by “*.” Those submitting an email ballot for their member organization for a scheduled vote 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 connection information for future IBIS teleconferences is as follows:

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Join with a video conferencing device

106010980@teams.bjn.vc

Video Conference ID: 114 666 897 5

[Alternate VTC dialing instructions](#)

Or call in (audio only)

[+1 267-768-8015,554664847#](tel:+12677688015554664847) United States, Philadelphia

Phone Conference ID: 554 664 847#

[Find a local number](#) | [Reset PIN](#)

[Learn More](#) | [Meeting options](#)

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

Roll Call: Graham Kus announced a total of 7 organization members attending with quorum of 7 met. Graham took meeting minutes.

CALL FOR PATENTS

Lance Wang called for declaration of any patents or pending patents related to the IBIS, IBIS-ISS, ICM, or Touchstone 2.0 specifications.

None announced.

REVIEW OF MINUTES AND ARs

- May 15, 2024 Hybrid European IBIS Summit at SPI 2024
 - o Randy Wolff motioned to approve. Curtis Clark seconded. There were no objections. The motion was approved.
- May 31, 2024 IBIS Open Forum teleconference
 - o Zhiping Wang motioned to approve. Randy seconded. There were no objections. The motion was approved.
- June 21, 2024 IBIS Open Forum teleconference
 - o Randy motioned to approve. Curtis seconded. There were no objections. The motion was approved.

ARs:

- Add SI-Clarity Logo to Member's Poster – done
 - o Lance welcomed SI-Clarity as a new member.
- Update EMC+SIPI IBIS Summit meeting time on registration page – in progress
 - o Lance reported that there is a link on the website, but app.ibis.org is not yet accessible.
 - o Please go to link: <https://app.ibis.org/summits/registration>
 - o Or, from the <https://www.ibis.org> main page, click on upcoming events, and then “CLICK HERE” to register.

ANNOUNCEMENTS, CALL FOR ADDITIONAL AGENDA ITEMS

Lance Wang called for any new announcements. None reported.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Randy Wolff reported 1 member renewal payment is still in progress. One new company is interested in joining at the one-half yearly rate. An invoice is being prepared for them by SAE ITC.

We have 27 members with a quorum of 7.

A request for an IBISCHK7 parser source code license purchase is in progress. The license source code agreement and invoice have been sent.

A request for a TSCHK2 parser source code license purchase is in progress. The license source code agreement is completing the signature process. The invoice is being processed by the licensee.

No change in financials since the June 21 report.

\$9,255 Balance for 2024

\$18,705 Adjusted Net Income for 2024 (adding the 2024 IBIS membership renewals received in 2023)

WEBSITE ADMINISTRATION

Lance Wang reported on behalf of Steve Parker there were recent updates to minutes links and IEEE-EMC summit registration link.

MAILING LIST

Curtis Clark reported no updates.

LIBRARY UPDATE

Zhiping Wang reported no updates.

INTERNATIONAL/EXTERNAL ACTIVITIES

IEC 63055/IEEE 2401, JEITA "LPB:"

- No updates reported.

Press Updates:

- No updates reported.

University Relations:

- No updates reported.

SUMMIT PLANNING AND REVIEW

IEEE EMC+SIPI 2024 IBIS Summit

Location:

- 8-12pm August 9, 2024 in Phoenix, AZ (GMT-7, Note: Arizona does not observe US daylight time)

Notes:

- Estimate approximately half-day Summit, similar count of 7-10 presentations.
- Lance reported approximately 4 individuals registered thus far. Chulsoon Hwang and Zhiping Yang will be there and intend to bring student attendees. Graham Kus and Weston Beal will be attending by teleconference.
- Zhiping stated that registration is important due to food and drink being provided, estimate currently is to provide for 30 attendees. Lance agreed to provide an update when registration proceeds.
- Lance reminded that papers are still being accepted and encouraged submissions to continue.

IBIS Summit Sponsors:

- IEEE EMC+SIPI is the main sponsor. Lance Wang noted that other sponsors are welcome.
- Registration for the IBIS Summit is available at the following link:
- <https://app.ibis.org/summits/registration>

More information about the IEEE EMC+SIPI event is available at the following link:

- <https://www.emc2024.org/>

Asian IBIS Summits:

- Lance Wang reported regarding the Japan IBIS Summit, that JEITA plans to have an exclusively in-person meeting. So, whether a virtual meeting could be setup or made available for the IBIS Summit portion is not clear. Hopefully there would be provision for this, and Lance would report back.
- Lance reported regarding the China IBIS Summit, have started conversation with Keysight representatives, on the path of IBIS and Keysight-China working together for an IBIS Summit as part of their Keysight User-Conference, between October 20th-November timeframe. The date is still to be decided.
- Randy Wolff and Lance discussed how to avoid overlap of the two IBIS Summits on the calendar as both appear to be proposed for end of October into early November as timeframe.
- Lance reported on IBIS Summit in Taipei Taiwan, that had been held for many years and then recently stopped, but if there is a desire or need to hold an IBIS Summit this year, please let us know.

QUALITY TASK GROUP

Randy Wolff reported as acting Chair of this group that there is a bug to report. There had been some discussion of an IBISCHK8 parser, and there would be some work to do to get a quote and budget for that item. There is some significant parser work that is involved. Normally, the Quality Task Group meets every Tuesday Morning at 9am Pacific. Meetings are currently ad-hoc.

Lance Wang asked if there were questions. None asked.

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

https://ibis.org/quality_wip/

ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported there are multiple discussion topics. The recent meetings were regarding C-PHY. There is also discussion of BIRD220 which is planned as the subject of the next meeting. Arpad encouraged interested parties to attend the next meeting.

Lance Wang asked if there were questions. None asked.

Note: Task group material can be found at:

https://ibis.org/macromodel_wip/

INTERCONNECT TASK GROUP

Michael Mirmak reported no meeting last week, but there was one this week. There was discussion on Touchstone 3 and an IEEE standard which deals with Touchstone data. There is a sketch [plan] to

incorporate this data into the file without affecting parser. TSIRDs and Touchstone changes would be an upcoming effort to document these.

Lance Wang asked for questions. None asked.

Note: Task group material can be found at:

https://ibis.org/interconnect_wip/

EDITORIAL TASK GROUP

Michael Mirmak reported that this task group is still suspended, but there could be a reconvened if IBIS8 becomes mature. At the same time there could be a staggered meeting dealing with Touchstone 3. The idea would be first week Editorial Task Group, and then second week Interconnect Task Group, and alternate going forward. Randy Wolff reported that Quality Task Group slot could also be utilized if convenient to attendees. Arpad Muranyi asked when editorial should be restarted. Michael responded that it could be restarted when appropriate, perhaps immediately, if so motioned.

The discussion concluded. There were no questions.

Note: Task group material can be found at:

https://ibis.org/editorial_wip/

NEW ADMINISTRATIVE ISSUES

- IBIS officer meeting & meeting with Tammy Patton of SAE ITC
- IBIS membership structure change discussions
- IBIS parser source-code purchase price change

Discussion was held on the above topics as follows:

Lance Wang reported that during extended IBIS Officer meeting there were membership levels and IBIS Parser subscription discussion. For example, member-organizations of IBIS would have source code available at a lower price point, as compared to a non-member organization where the price point would be at a higher rate. There is a plan to add this topic to the agenda for an upcoming IBIS Open Forum meeting in the future. Randy Wolff reported that IBIS Officers have helped prepare a document supporting Tammy Patton for presentation to SAE ITC. Randy reported that there would be some additional effort ongoing to prepare some budget items, such as travel for volunteers to IBIS Summits in the next year.

ROLL CALL

Mid-meeting roll call: Graham Kus reported 7 member attendees meeting quorum of 7.

TECHNICAL DISCUSSION

No new items.

NEW AND REVISED *IRDS

No new items.

***IRDS ELIGIBLE FOR VOTE SCHEDULING**

TSIRD7.2: Standardized Pole-Residue Representation of Touchstone Data

Arpad Muranyi reported not receiving any new questions or comments recently. Curtis Clark reported that they had not recognized that the delay parameter was optional. Curtis conveyed that there was no objection currently, but he would solicit clarification on his organization's position on this parameter.

Michael Mirmak motioned to schedule TSIRD7.2 for vote in next meeting. Lance Wang seconded. There were no objections. The motion passed.

Link: <https://app.ibis.org/tsirds/>

MOTIONS SCHEDULED FOR VOTE

No new items.

TABLED *IRDS

BIRD220: Pre-driver PSIJ Sensitivity keyword.

Lance Wang asked Arpad Muranyi if there was anything to report. Arpad stated that he expects to have updates as soon as Tuesday next week.

Link: <https://ibis.org/birds/bird220.docx>

IBISCHK AND TSCHK PARSER AND BUG STATUS

Randy Wolff reported on BUG250 with title "Incorrect [Diff Pin] caution report." Please see link for details.

- Link: <https://ibis.org/bugs/ibischk/bug250.txt>

Randy reported that Michael Mirmak is bringing this up despite it being a caution, because it can occur hundreds of times when parsing a large model- with the idea it could perhaps be issued one time only instead. Weston asked what the change is described. Randy clarified the suggested fix would be to only report the first caution occurrence. Randy expressed it appears to be a small change to parser behavior.

Randy stated the proposed BUG status as: Severity: Annoying, Priority: Low, Status: Open.

Randy moved, Michael seconded. There were no objections. The motion passed.

Randy reported this was the only BUG currently and there are no plans to update IBISCHK7.2.1 to any new versions, so most likely BUG250 would be added to those other open BUGs schedule for fix in IBISCHK8.

NEW TECHNICAL ISSUES

None reported.

NEXT MEETING AGENDA AND SCHEDULING

Weston Beal pointed out that the next IBIS Open Forum meeting for August 2, 2024 was 1 week after the upcoming IBIS Summit. There was group discussion that it may be unnecessary to hold an IBIS Open Forum meeting that soon after an IBIS Summit, especially considering multiple members may be on seasonal vacation. Graham Kus motioned to skip the IBIS Open Forum meeting August 2, 2024. Curtis Clark seconded. There were no objections. The motion passed.

Lance Wang reported the next IBIS Open Forum meeting would be held as a teleconference meeting on August 23, 2024. The following meeting would be held September 13, 2024.

Michael Mirmak motioned to adjourn. Weston Beal seconded the motion. The meeting adjourned.

NOTES

IBIS CHAIR: Lance Wang (978) 633-3388

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Solutions Architect, Zuken USA

238 Littleton Road, Suite 100

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VICE CHAIR: Doug Burns

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Consultant, SI-Clarity

SECRETARY: Graham Kus

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TREASURER: Randy Wolff

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Product Architect, Siemens EDA

LIBRARIAN: Zhiping Yang

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Senior Staff Engineer, DSP, Marvell

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POSTMASTER: Curtis Clark

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This meeting was conducted in accordance with SAE ITC guidelines.

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 or unsubscribe from the official ibis@freelists.org and/or ibis-users@freelists.org email lists (formerly ibis@eda.org and ibis-users@eda.org):
 - <https://www.freelists.org/list/ibis>
 - <https://www.freelists.org/list/ibis-users>
- To subscribe to or unsubscribe from one of the Task Group email lists: ibis-macro@freelists.org, ibis-interconn@freelists.org, ibis-editorial@freelists.org, or ibis-quality@freelists.org:
 - <https://www.freelists.org/list/ibis-macro>
 - <https://www.freelists.org/list/ibis-interconn>
 - <https://www.freelists.org/list/ibis-editorial>
 - <https://www.freelists.org/list/ibis-quality>
- 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: `ibischk7`, `tschk2`, `icmchk1`, `s2IBIS`, `s2IBIS2` and `s2iplt`.

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

<https://ibis.org/bugs/ibischk/>
<https://ibis.org/bugs/ibischk/bugform.txt>

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

<https://ibis.org/bugs/tschk/>
<https://ibis.org/bugs/tschk/bugform.txt>

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

<https://ibis.org/bugs/icmchk/>
https://ibis.org/bugs/icmchk/icm_bugform.txt

To report `s2IBIS`, `s2IBIS2` and `s2iplt` bugs, use the Bug Report Forms which reside at:

<https://ibis.org/bugs/s2IBIS/bugs2i.txt>
<https://ibis.org/bugs/s2IBIS2/bugs2i2.txt>
<https://ibis.org/bugs/s2iplt/bugsp1t.txt>

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

<https://ibis.org/>

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

<https://ibis.org/directory.html>

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SAE STANDARDS BALLOT VOTING STATUS (attende X; absent -)

Organization	Interest Category	Standards Ballot Voting Status	May 15, 2024	May 31, 2024	June 21, 2024	July 12, 2024
Altair	User	Inactive	-	-	-	-
AMD (Xilinx)	Producer	Inactive	-	-	-	-
Analog Devices	Producer	Inactive	-	-	-	-
Ansys	User	Active	X	X	X	X
Applied Simulation Technology	User	Inactive	-	-	-	-
Aurora System	User	Inactive	-	-	-	-
Broadcom Ltd.	Producer	Inactive	-	-	-	-
Cadence Design Systems	User	Active	-	X	X	-
Celestica	User	Inactive	-	-	-	-
Cisco Systems	User	Inactive	-	-	-	-
Dassault Systems	User	Inactive	X	-	-	-
GE Healthcare Technologies	User	Inactive	-	-	-	-
Google	User	Inactive	-	-	-	-
Huawei Technologies	Producer	Inactive	-	-	-	-
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Intel Corp.	Producer	Active	X	X	-	X
Keysight Technologies	User	Inactive	-	-	-	-
Marvell	Producer	Inactive	-	-	X	-
MathWorks	User	Active	X	X	X	X
Micron Technology	Producer	Inactive	-	-	-	-
MST EMC Lab	User	Active	X	X	X	X
SI-Clarity	User	Active	-	X	X	-
Siemens EDA	User	Active	-	X	X	X
STMicroelectronics	Producer	Inactive	X	-	-	-
Synopsys	User	Active	-	X	X	X
ZTE Corp.	User	Inactive	-	-	-	-
Zuken	User	Active	-	X	X	X

= Temporarily not a voting member

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 (voting by email counts as attendance)

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.