



IBIS Open Forum Minutes

Meeting Date: **June 24, 2022**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2022 PARTICIPANTS

AMD (Xilinx)	(Bassam Mansour)
Analog Devices (Maxim Integrated)	Tushar Pandey, Jermaine Lim, Rolynd Aquino, Aprille Hernandez-Loyola, Janchris Espinoza, Francis Ian Calubag, Toni Rose Racelis, Thi Nhu Quynh Nguyen
ANSYS	Curtis Clark*
Applied Simulation Technology	(Fred Balistreri)
Broadcom	(Yunong Gan), Jim Antonellis
Cadence Design Systems	Zhen Mu, Jared James, Ken Willis
Celestica	(Sophia Feng)
Cisco Systems	(Stephen Searce)
Dassault Systemes	(Stefan Paret), Longfei Bai
Google	(Hanfeng Wang)
Huawei Technologies	(Hang (Paul) Yan)
Infineon Technologies AG	(Christian Sporrer)
Instituto de Telecomunicações	(Abdelgader Abdalla)
Keysight Technologies	Ming Yan, Fangyi Rao, Majid Ahadi Dolotsara, Pegah Alavi, Saish Sawant, [Radek Biernack]
Luminous Computing	(David Banas)
Marvell	Steven Parker*
MathWorks	Graham Kus*, Walter Katz, [Mike LaBonte]*
Micron Technology	Randy Wolff, Aniello Viscardi, Justin Butterfield, Dragos Dimitriu
MST EMC Lab	(Chulsoon Hwang)
SerDesDesign.com	John Baprawski
Siemens EDA*	Arpad Muranyi*, Weston Beal*, Amin Maher, Scott Wedge, Steve Kaufer, Todd Westerhoff, Vladimir Dmitriev-Zdorov, Ken Cantrell
Synopsys	Ted Mido*
Teraspeed Labs	Bob Ross*
Waymo	Zhiping Yang*
ZTE Corporation	(Shunlin Zhu)
Zuken	(Michael Schäder)
Zuken USA	Lance Wang*

OTHER PARTICIPANTS IN 2022

Amazon Lab126	Ashkar Hashemi
Ampere Computing	Le Duy Quang
CEMWorks	Cielo Gerrie
Ciena	Hugues Tournier
Ericsson	(Guohua Wang)
IBM	Greg Edlund
Imperial College, UK	Cong Ling
Intel Corporation	Hsinho Wu, Michael Mirmak, Jingbo Li, Liwei Zhao

Mercury Systems
National Central University, Taiwan

OVT
SAE ITC
SeriaLink Systems
STMicroelectronics
University of Colorado, Boulder, ECEE
University of Illinois
Politecnico di Torino

Vincent Tam
Chiu-Chih Chou, Liu Huang Fu, Bohong Chai,
Remxiang Xu, Kuan Fa, Yanting Li
Sirius Tsang
José Godoy
Aleksey Tyshchenko, David Halupka
(Olivier Bayet)
Eric Bogatin
José Schutt-Aine
Stefano Grivet Talocia, Tommaso Bradde,
Marco De Stefano, Riccardo Trincherro,
Alessandro Zanco, Antonio Carlucci
Mike LaBonte*

Unaffiliated

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

Graham Kus (Secretary) declared that a quorum had been reached.

CALL FOR PATENTS

Lance Wang (Vice Chair) called for declaration of any patents or pending patents related to the IBIS, IBIS-ISS, ICM, or Touchstone 2.0 specifications. No patents were declared.

REVIEW OF MINUTES AND ARS

Lance Wang called for comments on the minutes of the June 3, 2022, IBIS Open Forum teleconference. Lance moved and Bob Ross seconded. There were no objections.

Lance reviewed ARs from the previous meeting.

- Michael Mirmak to add note to TSIRD4 that no parser change is required [AR].
 - Still open: Michael Mirmak not present.
- Curtis Clark to check that someone from each member company is subscribed to ibis@freelists.org [AR]
 - Done, Curtis found one company with no one subscribed and he contacted them.
- Zhiping Yang to get permission to use IEEE EMC Society Branding on our backdrop.
 - Done.
- Randy Wolff to start sending announcements for IEEE EMC+SIPI summit [AR]
 - Done.
- Randy Wolff to send new BIRD template to Steven Parker for posting [AR]
 - Done.

ANNOUNCEMENTS, CALL FOR ADDITIONAL AGENDA ITEMS

Graham Kus is now Secretary, taking over for Mike LaBonte at The MathWorks, Inc.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Bob Ross (Treasurer) reports that with adjustments from past payments and credits, we currently had twenty-six renewal members for 2022. We had twenty-nine members until May 31, 2022. The following companies were temporarily moved to non-voting status for this meeting because payments have not been received by SAE ITC.

- **Ericsson (they may drop membership and should be dropped from the IBIS home page)**
- **Intel**
- **STMicroelectronics**

***Cadence** (will keep its voting status and is included in the twenty-six renewals above. Payment was still pending but delayed because SAE ITC did not follow through on logging into the Cadence accounts payable system when notified at the end of April 2022.)

All sponsorship payments for the IBIS Summit at DesignCon were received. Little or no payments were anticipated for the IBIS Summit at IEEE EMC+SIPI because IEEE EMC planned to pay for the room and refreshments.

\$18,524 Balance for 2022

\$21,974 Adjusted Balance for 2022

\$450 Adjusted Balance for 2023

WEBSITE ADMINISTRATION:

Steven Parker reported that BIRD213 was updated to BIRD213.1. Also, that Ericsson had been removed from the homepage and poster page. Finally, Graham Kus was listed as Secretary on the website.

MAILING LIST ADMINISTRATION

Curtis Clark (Postmaster) reports:

Sent Graham information on how to subscribe.

LIBRARY UPDATE

Zhiping Yang (Librarian) Reports:

No updates on the library side.

INTERNATIONAL/EXTERNAL ACTIVITIES

Conferences:

The IEEE EMC+SIPI conference would be held in Spokane, Washington, August 1 to 5, 2022.

IEEE International Symposium on Electromagnetic Compatibility, Signal & Power Integrity (EMC+SIPI), August 1-5, 2022

<https://emc2022.emcss.org>

Announcing the “Ask the Experts” Panels at the 2022 IEEE International Symposium on EMC+SIPI in Spokane, Washington

<https://ieeexplore.ieee.org/document/9780299>

Press Updates

None

Related standards

No discussion.

IEEE IBIS Standardization

Zhiping Yang said this had to wait until the Board had a discussion with SAE ITC.

SUMMIT PLANNING AND REVIEW

Lance Wang said there would be a Hybrid IBIS Summit planned concurrent with IEEE EMC+SIPI that had been scheduled for August 5, 2022.

The participants in the Expert Panel would not include some people who were listed as Panel Participants because they would not be able to attend onsite.

QUALITY TASK GROUP

Bob Ross said he is taking over the chair from Mike LaBonte. Bob reported the main topics have been review an IBIS Parser Contract for parser development for the next bug fix version of IBISCHK. There were eight bugs to be fixed as per the contract, two of which we had provided solutions for, six the parser developer would have to look at and provide a quote. This had been sent to SAE ITC for legal review before sending to the Parser Developer to provide a quote. There had been no reply from SAE ITC, Bob said he would follow up.

The actual contract had TBD but would have actual amount we would pay the Parser Developer and estimated delivery date, for a statement of work that would be IBISCHK version 7.0.2 with bug fixes. Bob also said they had been beginning to discuss a Touchstone parser update.

Note: 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 (ATM Chair) announced that the group meets on Tuesdays at 12:00 a.m. PT. He reported they were talking about Power Integrity related topics. Some presentations had been given on how to standardize power modelling.

Zhiping Yang reported that Intel had started some discussion for on-die Power Integrity Modelling. We may see more at the upcoming IBIS Summit at the IEEE conference.

Note: Task group material can be found at:

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

INTERCONNECT TASK GROUP

Lance Wang said the group had not been meeting in Michael Mirmak's absence.

Note: Task group material can be found at:

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

EDITORIAL TASK GROUP

Lance Wang said the group remained suspended.

Note: Task group material can be found at:

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

NEW ADMINISTRATIVE ISSUES

Mike LaBonte announced the results of the Officer Election. During the voting period which ended June 15, 2022: ten companies cast their votes for IBIS Officers. Nine of the voting companies were eligible to vote and their votes were counted. One company did not become eligible in time for their votes to be counted. Sixteen eligible member companies did not cast their votes.

The following Officers were elected:

Chair	Randy Wolff, Micron Technology
Vice-Chair	Lance Wang, Zuken USA
Treasurer	Bob Ross, Teraspeed Labs
Secretary	Graham Kus, MathWorks
Webmaster	Steve Parker, Marvell
Librarian	Zhiping Yang, Waymo
Postmaster	Curtis Clark, ANSYS

NEW AND REVISED *IRDS

None.

IRDS SCHEDULED FOR VOTE

None.

IRDS ELIGIBLE FOR VOTE

BIRD213.1: EXTENDING IBIS-AMI FOR PAMn ANALYSIS

No discussion.

BIRD219.1: AMI PARAMETER ROOT NAME CLARIFICATION

Arpad Muranyi said this was waiting for Michael Mirmak's return.

TABLED IRDS: (NO DISCUSSION WITHOUT MOTION TO "UNTABLE")

No discussion.

TSIRD4: [END] KEYWORD CORRECTIONS AND OTHER EDITORIAL CHANGES

No discussion.

IBISCHK AND TSCHK PARSER AND BUG STATUS

Bob Ross said that Michael Schäder from Zuken had provided TSCHK2 code changes to speed up reading of Touchstone files. This was listed as TSCHK2 BUG5 in the TSCHK bug directory. A .zip file had been provided with four replacement source files and a presentation that describes the changes. Mike LaBonte said, in the code there are loops where data is read into memory as vector classes, where the vector is resized with every loop, but the code could be changed to allocate full size vectors before the loops at the beginning. We believe this would improve performance. Mike had verified that the modified source code appeared to have been based on the latest TSCHK2 source code. This was to be sure Michael S. had based his work on the most recent release.

NEW TECHNICAL ISSUES

No discussion.

NEXT MEETING

Normally the next IBIS Open Forum teleconference would have been held July 15, 2022. Lance Wang moved that the meeting be held July 22, 2022 instead due to member attendance conflicts. There were no objections. Lance said that due to IEEE SIPI IBIS Hybrid Summit would be held on August 5, 2022, therefore the IBIS Open Forum meeting on August 5 would have to push out to August 12, 2022. There were no objections.

Graham Kus moved to adjourn. Bob Ross seconded the motion. The meeting was adjourned.

NOTES

IBIS CHAIR: Randy Wolff (208) 363-1764

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VICE CHAIR: Lance Wang (978) 633-3388

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Solutions Architect, Zuken USA
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SECRETARY: Graham Kus

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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: `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](http://www.ibis.org) for more information on previous discussions and results:

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

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SAE STANDARDS BALLOT VOTING STATUS (attendance X absent -)

Organization	Interest Category	Standards Ballot Voting Status	May 13, 2022	May 26, 2022	June 3, 2022	June 24, 2022
AMD (Xilinx)	Producer	Inactive	-	-	-	-
Analog Devices (Maxim Integrated)	Producer	Inactive	-	X	-	-
ANSYS	User	Active	X	-	X	X
Applied Simulation Technology	User	Inactive	-	-	-	-
Broadcom Ltd.	Producer	Inactive	-	X	-	-
Cadence Design Systems	User	Active	X	-	X	-
Celestica	User	Inactive	-	-	-	-
Cisco Systems	User	Inactive	-	-	-	-
Dassault Systemes	User	Inactive	-	X	-	-
Google	User	Inactive	-	-	-	-
Huawei Technologies	Producer	Inactive	-	-	-	-
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Instituto de Telecomunicações	User	Inactive	-	-	-	-
Intel Corp.	Producer	Active	X	-	-	=
Keysight Technologies	User	Active	X	-	X	-
Luminous Computing	General Interest	Inactive	-	-	-	-
Marvell	Producer	Active	X	-	X	X
MathWorks	User	Active	X	-	X	X
Micron Technology	Producer	Active	X	X	X	-
MST EMC Lab	User	Inactive	-	-	-	-
SerDesDesign.com	User	Inactive	-	-	-	-
Siemens EDA (Mentor)	User	Active	X	X	X	X
STMicroelectronics	Producer	Inactive	-	-	-	=
Synopsys	User	Active	X	-	X	X
Teraspeed Labs	General Interest	Active	X	X	X	X
Waymo	User	Active	X	-	X	X
ZTE Corp.	User	Inactive	-	-	-	-
Zuken	User	Active	X	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.