



IBIS Open Forum Minutes

Meeting Date: **August 6, 2021**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2021 PARTICIPANTS

ANSYS	Curtis Clark, Wei-hsing Huang
Applied Simulation Technology	(Fred Balistreri)
Broadcom	(Yunong Gan)
Cadence Design Systems	Zhen Mu*
Celestica	(Sophia Feng)
Cisco Systems	(Stephen Searce)
Dassault Systemes (CST)	Stefan Paret, David Duque, Longfei Bai
Ericsson	(Guohua Wang)
Google	Zhiping Yang*
Huawei Technologies	(Hang (Paul) Yan)
Infineon Technologies AG	(Christian Sporrer)
Instituto de Telecomunicações	(Abdelgader Abdalla)
Intel Corporation	Hsinho Wu*, Michael Mirmak*
Keysight Technologies	Radek Biernacki*, Fangyi Rao
Luminous Computing	David Banas
Marvell	Steve Parker*
MathWorks (SiSoft)	Mike LaBonte*, Walter Katz*
Maxim Integrated	Tushar Pandey
Micron Technology	Randy Wolff*, Justin Butterfield, Aniello Viscardi
MST EMC Lab	(Chulsoon Hwang)
NXP	(John Burnett)
SerDesDesign.com	(John Baprawski)
Siemens EDA (Mentor)	Arpad Muranyi*, Weston Beal*
Siemens AG	Franz Pflieger, Sebastien Kollinger
Synopsys	Ted Mido*, Andy Tai
Teraspeed Labs	Bob Ross*
Xilinx	(Romi Mayder)
ZTE Corporation	Bowen Shen, Changgang Yin, Dongdong Ye Liqiang Meng, Xiaoxuan Liu
Zuken	Michael Schäder
Zuken USA	Lance Wang

OTHER PARTICIPANTS IN 2021

Achronix Semiconductor	Hansel Dsilva
AVL Software and Functions	Wolfgang Röhrner

Continental Automotive	Julnar Musmar, Stefanie Schatt
De Montfort University (IEEE EMC)	Alistair Duffy
IT-Beratung-Maurer	Manfred Maurer
Kandou Bus	Sherman Chen
KEI Systems	Shinichi Maeda
Microchip Norway	Lars Snith
Politecnico di Torino	Stefano Grivet-Talocia, Paolo Manfredi Alessandro Zanco, Felipe Treviso Marco Destefano, Riccardo Trincherro Tomasso Bradde
RTC	Ken Whigham
University of Illinois, Urbana	Jose Shutt-Ainé, Xinying Wang

In the list above, attendees 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](tel: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](#)

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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, confirming that 7 constituted a quorum.

CALL FOR PATENTS

Randy Wolff 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

Randy Wolff called for comments on the minutes of the July 16, 2021 IBIS Open Forum teleconference. Radek Biernacki moved to approve the minutes. Ted Mido seconded the motion. There were no objections.

Randy reviewed ARs from the previous meeting. There were no new ARs.

ANNOUNCEMENTS, CALL FOR ADDITIONAL AGENDA ITEMS

None.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Bob Ross reported that there had been no change from the previous report. Cash flow for 2021 was \$26,725 and the total adjusted balance for 2021 was \$30,075. Membership stood at 28, with a voting quorum of 7. We had 26 members paid this year and 2 paid in the prior year. Bob was still tracking down a payment not yet recognized by SAE ITC. A half-year membership payment was also in progress. A full payment of \$17,500.00 for ibischk7 version 7.1.0 was expected in 2021.

Mike LaBonte said he and Walter Katz would be changing their primary affiliation from SiSoft to MathWorks. Randy Wolff said the logo on the home and poster pages should be changed to the MathWorks logo, if that could be arranged. Bob said the printed company name could be used if not.

[AR] Mike LaBonte to supply MathWorks logo for IBIS home page

WEBSITE ADMINISTRATION

Steven Parker said the website was up to date. He had corrected the officer roles of Mike LaBonte and Curtis Clark, who had swapped roles in the previous election. Anders Eckholm had been removed from the roster. Officer updates were made on two pages. Bob Ross said the previous China summit was held on November 20, 2020, but the agenda page for that summit had November 13. Bob asked if the most recent minutes had been posted. They were. Randy Wolff asked when we would have pages that allow officers and task group chairs to post certain routine web updates. Steve said he did not have an ETA on that.

MAILING LIST ADMINISTRATION

Mike LaBonte said he was working with Curtis Clark on list subscription changes for himself. Bob Ross asked if the sisoft.com domain would remain active. Mike said it would be in use for some time.

LIBRARY UPDATE

Zhiping Yang said he and Professor Hwang from MST were working on a proposal to develop an open-sourced IBIS library for research and other uses. There would be follow-up on that after the summits to be held this month.

INTERNATIONAL/EXTERNAL ACTIVITIES

- Conferences

IEEE EMC + SIPI Symposium 2021 (virtual from July 27-August 13, 2021):

<https://www.emc2021.emcss.org>

DesignCon 2021 (August 16-18, 2021, San Jose, CA):

<https://www.designcon.com/>

Mike LaBonte noted that EDI CON was still holding summits. IBIS had previously conducted a summit at EDI CON, but there had not been very much interest shown for IBIS.

- Press Update

Randy Wolff showed the press release from SAE ITC about the DesignCon summit. It could be viewed at <https://www.sae.org/news/press-room/2021/07/virtual-ibis-summit-to-take-place-at-designcon-2021>.

[Virtual IBIS Summit to Take Place at DesignCon 2021 \(sae.org\)](https://www.sae.org/news/press-room/2021/07/virtual-ibis-summit-to-take-place-at-designcon-2021)

- Related standards

No report.

SUMMIT PLANNING AND STATUS

- IEEE EMC+SIPI (July 27-August 13, 2021 virtual)

The summit would be held August 12, 8:00am-12:00pm PT. Lance Wang, Bob Ross, Randy Wolff, and Wei-Hsing Huang participated in an Ask The Experts Panel for the conference itself. The summit will be a Zoom meeting. The info would be sent next week, and it would also be on the EMC SI/PI website. Bob said we had 8 presentations. There were 18 known to be registered so far. Arpad Muranyi asked if there would be a problem with company policies using Zoom. Randy said there had been security issues early on, but he believed those were resolved. We had used Zoom for the previous summit.

- DesignCon 2021 (August 16-18, 2021 virtual)

The summit would be held August 19, 8:00am-12:00pm PT. Bob said the agenda was full. We could drop a presentation or extend the summit to 12:30 PT. Mike said his presentation could be dropped. Bob said another presentation from Randy and Arpad would better fit the amount time

that needed to be cut. Walter Katz felt extending the meeting should not be a problem. We agreed to do that. Arpad suggested announcing the time extension in the next announcement email. Bob noted that several presentations would be repeated across the two summits.

Randy said he had been in discussion with JEITA about the Tokyo summit, which would be virtual, on November 12. The China summit might be held on November 19, also virtual. Bob said the JEITA date seemed final, but the China date was not yet final. Bob said he would like to fill the China summit with local participants. He said some MST students were in that area. He said they might participate in Tokyo too, but not at the expense of JEITA presenters.

QUALITY TASK GROUP

Mike LaBonte reported that the group meets on Tuesdays at 9:00 a.m. PT. The group continues to oversee the next ibischk release, ibischk7.1.0. He said tschk2.0.1 was almost ready to release, but he was struggling to compile it for Windows 32. Randy Wolff said it should be ready for the summits, so that people could try it after Mike's presentation about tschk2.0.1.

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 meets on Tuesdays at 12:00 p.m. PT. He hoped the redriver BIRD was finally done, a final draft would be reviewed Tuesday. It should be submitted after that. The PAMn BIRD had more changes made by Walter Katz, and progress was being made on it.

Task group material can be found at:

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

INTERCONNECT TASK GROUP

Randy Wolff reported that the Interconnect task group remained suspended. Its former time slot was being used by the Editorial task group.

Task group material can be found at:

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

EDITORIAL TASK GROUP

Randy Wolff said they were deep into the backchannel section, with changes from BIRD201. They were making progress. There were just a few remaining checklist items. Arpad Muranyi said the extensive changes might call for a new BIRD to document them. He asked if such a BIRD would need to be approved before IBIS 7.1 ratification. Randy said that could be worked on in parallel, and fast-tracked. Bob Ross said it was a complete rewrite of section 10.9. Arpad said the flow descriptions were rewritten without changing the original intent. Walter Katz

suggested voting on the BIRD before IBIS 7.1 ratification. Randy agreed with that. Bob said we had room in the meeting cycle to approve it.

Task group material can be found at:

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

NEW ADMINISTRATIVE ISSUES

- None

BIRD211.2: NEW REDRIVER FLOW

Randy Wolff asked when BIRD211.3 might be submitted. Arpad Muranyi hoped it would be Tuesday.

BIRD213: EXTENDING IBIS-AMI FOR PAMn ANALYSIS

Randy Wolff said this was also being discussed in ATM meetings. Walter Katz said there were 2 parts: how to describe "N" and the associated thresholds, and also the voltage level mappings to symbol streams. Mapping was complex, but EDA tools were already doing it. Therefore, mapping had been removed from the BIRD. He invited those interested to join ATM meetings to discuss that. Arpad Muranyi asked how users would know what the encoding should be. Walter said model documentation should have that. Randy asked if model makers would have to ask EDA vendors to support encoding. Walter said they were described in standards, which were public. Walter said EDA tools had been doing that for years.

BIRD166.4: RESOLVING PROBLEMS WITH REDRIVER INIT FLOW

Discussion was tabled.

BIRD181.1: I-V TABLE CLARIFICATIONS

Discussion was tabled.

BIRD190: CLARIFICATION FOR REDRIVER FLOW

Discussion was tabled.

BIRD210: NEW REDRIVER AMI FLOW

Discussion was tabled.

IBISCHK AND TSCHK PARSER AND BUG STATUS

Randy Wolff showed IBISCHK BUG217, reported by Curtis Clark. Bob Ross described the bug, which involved subdirectories in references to .ami files. He believed the parser developer was

already fixing it. Arpad Muranyi asked why ibischk seemed to find the .ami file in one place but not the other. Mike LaBonte said those were probably two different areas in the code, with one working and one not. Randy said the issue was related to AMI_Version. IBISCHK found no errors for AMI_Version 7.0, but setting to 6.0 found the errors. Bob said only 10 messages were reported, but there should have been 12, based on examination of the testcase.

Bob moved to classify BUG217 as severe severity and high priority. Arpad Muranyi seconded. Without objection the classification was approved.

[AR] Bob Ross to post finalized classification for BUG217

Bob showed a section of code that was found to be in error. A clause that should be "else if" was just "if". That could cause some IBIS files to be incorrectly considered to be IBIS 6.1 files. The developer had also caught the error. That was BUG218, with proposed severe severity and high priority. It would be fixed in the release currently under development.

Bob moved to classify BUG218 as severe severity and high priority. Arpad Muranyi seconded. Without objection the classification was approved.

[AR] Bob Ross to post finalized classification for BUG218

Bob said the developer had been asking many questions from reading the BIRDS. Some questions would be considered for clarification by the Editorial Task Group. Currently the checking of linkages to IBIS-ISS and Touchstone files were being worked on. This would be done in [Interconnect Model], EMD, and other places such as Ts4File in AMI.

We might receive a preliminary release for review. Bob was considering asking current source code purchasers if they would wish to review that.

Bob said we may release tschk2.0.1 executables soon, and he would distribute the source code to purchasers.

[AR] Mike LaBonte to finalize tschk2.0.1 and post

NEW TECHNICAL ISSUES

None

NEXT MEETING

The next IBIS Open Forum teleconference meeting would be held on August 27, 2021. The following teleconference meeting was tentatively scheduled for September 17, 2021. The IEEE EMC+SIPi summit would be held August 12, 2021. The DesignCon summit would be held August 19, 2021.

Mike LaBonte moved to adjourn. Arpad Muranyi seconded the motion. The meeting adjourned.

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NOTES

IBIS CHAIR: Randy Wolff (208) 363-1764

rwolff@micron.com

Principal Engineer, Silicon SI Group, Micron Technology, Inc.

8000 S. Federal Way

P.O. Box 6, Mail Stop: 01-720

Boise, ID 83707-0006

VICE CHAIR: Lance Wang (978) 633-3388

lance.wang@ibis.org

Solutions Architect, Zuken USA

238 Littleton Road, Suite 100

Westford, MA 01886

SECRETARY: Mike LaBonte

mlabonte@mathworks.com

Senior Engineer

1 Lakeside Campus Drive

Natick, MA 01760

TREASURER: Bob Ross (503) 246-8048

bob@teraspeedlabs.com

Engineer, Teraspeed Labs

10238 SW Lancaster Road

Portland, OR 97219

LIBRARIAN: Zhiping Yang (650) 214-0868

zhipingyang@google.com

Sr. Hardware Manager, Google LLC

1600 Amphitheatre Parkway

Mountain View, CA 94043

WEBMASTER: Steven Parker (845) 372-3294

sparker@marvell.com

Senior Staff Engineer, DSP, Marvell

2070 Route 52

Hopewell Junction, NY 12533-3507

POSTMASTER: Curtis Clark

curtis.clark@ansys.com

ANSYS, Inc.

150 Baker Ave Ext

Concord, MA 01742

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 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/bugsplt.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

Organization	Interest Category	Standards Ballot Voting Status	Standards Ballot Voting Status			
			June 04, 2021	June 25, 2021	July 16, 2021	August 6, 2021
ANSYS	User	Active	X	X	X	-
Applied Simulation Technology	User	Inactive	-	-	-	-
Broadcom Ltd.	Producer	Inactive	-	-	-	-
Cadence Design Systems	User	Active	X	X	X	X
Celestica	User	Inactive	-	-	-	-
Cisco Systems	User	Inactive	-	-	-	-
Dassault Systemes	User	Inactive	-	-	-	-
Ericsson	Producer	Inactive	-	-	-	-
Google	User	Active	X	X	X	X
Huawei Technologies	Producer	Inactive	-	-	-	-
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Instituto de Telecomunicações	User	Inactive	-	-	-	-
Intel Corp.	Producer	Active	X	X	X	X
Keysight Technologies	User	Active	X	X	X	X
Luminous Computing	General Interest	Active	-	X	X	-
Marvell	Producer	Active	X	-	-	X
MathWorks (SiSoft)	User	Active	X	X	X	X
Maxim Integrated	Producer	Inactive	-	-	-	-
Micron Technology	Producer	Active	X	X	X	X
MST EMC Lab	User	Inactive	-	-	-	-
NXP	Producer	Inactive	-	-	-	-
SerDesDesign.com	User	Inactive	-	-	-	-
Siemens EDA (Mentor)	User	Active	X	X	X	X
Synopsys	User	Active	X	X	-	X
Teraspeed Labs	General Interest	Active	X	X	X	X
Xilinx	Producer	Inactive	-	-	-	-
ZTE Corp.	User	Inactive	-	-	-	-
Zuken	User	Active	X	X	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 (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.