

# IBIS Open Forum Minutes

Meeting Date: **September 16, 2011**

Meeting Location: **Teleconference**

## VOTING MEMBERS AND 2011 PARTICIPANTS

Agilent	Radek Biernacki*, Fangyi Rao, Amolak Badesha
Altera	Hui Fu, Zhuyuan Liu, Julia Nekrylova, David Banas*
AMD	Nam Nguyen*
Ansys (Ansoft)	Samuel Martens
Apple Computer	(Matt Herndon)
Applied Simulation Technology	Norio Matsui
Cadence Design Systems	Terry Jernberg, Ambrish Varma, Dennis Nagle, Martin Biehl, Yukio Masuko
Cisco Systems	[Syed Huq], [Mike LaBonte], Luis Boluna, Ashwin Vasudevan, Zhiping Yang
Ericsson	Anders Ekholm*
Freescale	(Jon Burnett)
Green Streak Programs	Lynne Green
Huawei Technologies	Xiaoqing Dong
IBM	Adge Hawes*, Greg Edlund
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Michael Mirmak*, Udy Shrivastava, Heather Monigan
IO Methodology	Lance Wang*
LSI	Brian Burdick
Mentor Graphics	Arpad Muranyi*, Ed Bartlett, Vladimir Dmitriev-Zdorov, Steve Kaufer, Chuck Ferry
Micron Technology	Randy Wolff*, Andrea Spiezia, Roberto Izzi, Aniello Viscardi, Giovanni Guerra, Francesco Madonna, Giuseppe Fusillo
National Semiconductor	Hsinho Wu, Pegah Alavi, John Goldie
Nokia Siemens Networks GmbH	Eckhard Lenski
QLogic	David Choe, James Zhou
Signal Integrity Software	Walter Katz*, Todd Westerhoff, Mike Steinberger, Barry Katz
Sigrity	Raymond Chen, Kumar Keshavan, Yingxin Sun
Synopsys	Andy Tai, Ted Mido, Scott Wedge
Teraspeed Consulting Group	Bob Ross*, Kellee Crisafulli, Tom Dagostino, Scott McMorro
Texas Instruments	Casey Morrison, Alfred Chong
Toshiba	(Tetsuya Endo)
Xilinx	(Raymond Anderson)
ZTE	Bi Yi
Zuken	(Michael Schaefer)

## OTHER PARTICIPANTS IN 2011

AET	Mikio Kiyono
Arrow Electronics	Ian Dodd
Avago	Weiping He, Minh Quach, Sari Tocco
Bayside Design	Elliot Nahas
Broadcom	Mohammad Ali
CST	Martin Schauer
Exar Corporation	Helen Nguyen
Granite River Labs	Johnson Tan, Mike Engbretson, Quintin Anderson
High Speed Design Center	Ben Chia
ICT-Lanto	Steven Wong
JEITA	Atsushi Ishikawa
KEI Systems	Shinichi Maeda
Maxim Integrated Products	Hassan Rafat
Mindspeed	Jeff Li, Lyn Wang
NetLogic	Ryan Coutts, Antonis Orphanou
Oracle	Gustav Blando
Politecnico di Torino	Igor Stievano, Stefano Grivet-Talocia
Pristine Signals	AbdulRahman (Abbey) Rafiq
Renesas Electronics	Takuji Komeda
Samsung Electronics	Il Seong
Siemens	Manfred Maurer
Simberian	Yuriy Shlepnev
ST Microelectronics	Fabio Brina, Alan Smith
TechAmerica	(Chris Denham)
Thales Communication	Alexandre Amedeo, Cyrip Chastang
University of Illinois	Jose Schutt-Aine
University of L'Aquila	Danilo di Febo
Vitesse Semiconductor	Siris Tsang
Independent	Yoichi Niioka, Mike LaBonte*

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
October 7, 2011	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 AM to 9:55 AM 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](http://www.cisco.com/web/about/doing_business/conferencing/index.html)

NOTE: "AR" = Action Required.

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## **INTRODUCTIONS AND MEETING QUORUM**

No new participants.

## **CALL FOR PATENTS**

Michael Mirmak called for any patents or pending patents related to the IBIS 3.2, IBIS 4.2, IBIS 5.0, Touchstone 2.0 or ICM 1.1 specifications. No patents were declared.

## **REVIEW OF MINUTES AND ARS**

Randy Wolff called for comments regarding the minutes of the August 26, 2011 IBIS Open Forum teleconference. The minutes were approved without changes.

## **MEMBERSHIP STATUS AND TREASURER'S REPORT**

Bob Ross reported that QLogic has joined as a new member. He is still tracking down membership payments for several other companies.

## **WEB PAGE UPDATES**

Mike LaBonte reported that he has a new MANTIS installation. This is our new BUG tracker, and he has a version setup separately from the eda.org MANTIS system. He has not announced the url yet, as he has a few more things to setup. On launch, he should have current BUGs in the system and may add old BUGs as well.

He has also been comparing the poster page, roster page and minutes roster to make sure that they are all consistent. Also, the roster page has three different coding styles in it, and he would like to edit it to clean it up. He is considering moving it all to one style, but if he is going to do that much work we will need to decide what we want the page to look like. Michael Mirmak wondered if he wanted to setup a style sheet. Mike thought this would be a good idea.

## **MAILING LIST ADMINISTRATION**

Mike LaBonte reported that everything is going fine.

### **MODEL LIBRARY UPDATE**

Anders Ekholm reported that he sent an updated page on September 10 that fixes broken links and updates some company acquisitions. Mike LaBonte noted that he ran the new page through a link checker and it came out clean.

### **MISCELLANY/ANNOUNCEMENTS**

None.

### **OPENS FOR NEW ISSUES**

Michael Mirmak noted that he may need to leave the meeting early. He will transfer control of the meeting to someone else if necessary.

### **INTERNATIONAL/EXTERNAL ACTIVITIES**

#### **- P1735 Encryption**

No update. The IEEE Study Group on Encryption web reflector archives are found at:

<http://www.eda-stds.org/ip-encrypt/hm/>

#### **- VHDL-AMS Table-Driven Models**

Arpad Muranyi noted that there were no meetings since the last teleconference.

More information can be found at:

[http://www.eda.org/twiki/bin/view.cgi/P10761/ProjectsArea#Table\\_driven\\_Modeling\\_Champion\\_J](http://www.eda.org/twiki/bin/view.cgi/P10761/ProjectsArea#Table_driven_Modeling_Champion_J)

#### **- Conferences**

The 1<sup>st</sup> International IEEE Workshop on Chip-Packaging Co-Design for High Performance Electronic Systems will be held September 19-20, 2011 in Santa Clara, California. There may be topics of interest to IBIS. A couple of IBIS members will be presenting at the conference. More information can be found at:

<http://ieee-cpcw.org>

EPEPS (Electrical Performance of Electronic Packaging and Systems) will be held October 23-26 in San Jose, California but will not feature an official IBIS presence. The program has been released. More information can be found at:

<http://epeps.ece.illinois.edu/>

EMCCompo2011, the 8<sup>th</sup> International Workshop on Electromagnetic Compatibility of Integrated Circuits, will be held in Dubrovnik, Croatia, November 6-9, 2011. More information can be found at:

<http://www.emccompo2011.org>

EDAPS (Electrical Design of Advanced Packaging & Systems) will be held December 12-14 in Hangzhou, PRC. More information can be found at:

<http://www.edaps2011.org>

Official IBIS participation is not planned for any of the events above, though individual papers and discussion on IBIS are encouraged. These are events with refereed submissions, with deadlines either pending or already passed.

- Press Update  
None.

### **IEC APPROVAL ACTIVITIES**

Randy Wolff reported that Michael Mirmak submitted a revised PAR to Stan Krolikoski for review and eventual submittal to IEEE DASC. Stan has also clarified some questions on copyright ownership of standards documents and why it would be a good idea to standardize IBIS through the IEEE DASC in the future. This actually simplifies both the ANSI and IEC approvals. We are waiting on further updates from Stan.

### **TECHAMERICA UPDATE**

Michael Mirmak noted that we did get one legal issue closed. The TechAmerica legal team reviewed the parser agreement and found some changes were necessary. The changes are relatively minor and some language was added to clarify how third party contractors would need to handle the parser code.

KAVI members' login is at:

<http://workspace.techamerica.org/apps/org/workgroup/ibis-members>

### **IEEE DASC UPDATE**

Michael Mirmak reported that TechAmerica has some concerns with copyright status of documents as we are working on IBIS approval through IEEE DASC. Michael has been asked to give an overview of IBIS on October 6 at the next DASC meeting. Login information for this meeting can be found at <http://dasc.org/>. Randy mentioned that Stan Krolikoski's email clarified the relationship between ANSI and IEEE DASC. According to Stan, if a standard like IBIS is first contributed to the IEEE and subsequently is standardized as an IEEE standard, then it will automatically become an ANSI standard without the need to undergo any additional balloting—and will also have a streamlined path into the IEC. On the other hand, ANSI standards do not automatically become IEEE standards, and extra PAR writing and balloting steps are required to get them into the IEEE and eventually into the IEC.

### **SUMMIT STATUS**

- Asian IBIS Summit – Shanghai

The Shanghai IBIS Summit is scheduled for Tuesday, November 15 at the Parkyard Hotel. Bob Ross noted that we need to get commitments for papers since the deadline is October 17. The second announcement went out. Sponsors include Huawei Technologies, Agilent Technologies, Ansys, Cadence Design Systems, Intel Corp., IO Methodology, Sigrity, Synopsys, ZTE Corporation and others to be determined.

- Asian IBIS Summit –Yokohama

The meeting is November 18 in Yokohama and corresponds with a JEITA conference. The meeting may run from 1:30pm to 6:00pm. A room has been finalized. The first announcement has gone out.

- Asian IBIS Summit – Taipei

The meeting is scheduled for November 21. The first announcement has gone out. There are 7 sponsors including Agilent Technologies, Avant Technology (IO Methodology), Cadence, Foxconn Technology Group, Intel Corporation, Sigrity, Synopsys and others to be determined.

Sponsorship opportunities for all upcoming IBIS summits are available, with sponsors receiving free mentions in the minutes, agenda, and other announcements. This includes upcoming events in Asia. Contact the IBIS Board for further details.

## **QUALITY TASK GROUP**

Mike LaBonte reported that the group is continuing to address issues of AMI quality. There have been good presentations and discussion on the issues lately. The work parallels what the ATM group has been doing. They are focusing on ways to have automated checking as they develop a checklist. The group is meeting on Tuesdays at 8:00AM PDT. There will be no meeting on September 27<sup>th</sup>.

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

[http://www.eda.org/ibis/quality\\_wip/](http://www.eda.org/ibis/quality_wip/)

## **MODEL REVIEW TASK GROUP**

No update.

## **ADVANCED TECHNOLOGY MODELING TASK GROUP**

Arpad Muranyi reported that the jitter proposal is being discussed and progress is being made.

Task group material can be found at:

[http://www.eda.org/ibis/macromodel\\_wip/](http://www.eda.org/ibis/macromodel_wip/)

## **EDITORIAL TASK GROUP**

Michael Mirmak reported that the next meeting is on September 28. There are looking at

editorial formats on sections 6C and 10 of IBIS 5.0 currently. Feel free to provide comments on the documents available for review on the editorial website.

The current IBIS 5.0 reformatting documentation can be reviewed at the following new location:

[http://www.eda.org/ibis/editorial\\_wip/](http://www.eda.org/ibis/editorial_wip/)

The old link is being maintained, to avoid breaking existing references:

[http://www.eda.org/ibis/reformat\\_wip/](http://www.eda.org/ibis/reformat_wip/)

## **NEW ADMINISTRATIVE ISSUES**

None.

### **BIRD127.2: IBIS-AMI TYPOGRAPHICAL CORRECTIONS**

Radek Biernacki made some comments on the BIRD over email. His email with comments was displayed to the group.

Radek moved to not vote on the BIRD until changes can be made. Arpad Muranyi seconded. There were no objections. The BIRD will go back to the ATM committee to make changes.

### **BIRD135.1: ADD BOOLEAN TO BNF FOR IBIS-AMI**

There were no comments on the BIRD.

Bob Ross moved to vote on approval of the BIRD. Radek Biernacki seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – abstain  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes

### **BIRD136: DEFINING RELATIONSHIPS BETWEEN TYPE AND FORMAT**

Arpad Muranyi noted that there were no further discussions on the BIRD in the ATM task group.

Bob Ross moved to vote on approval of the BIRD. Arpad Muranyi seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – abstain  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes

#### **BIRD137.2: AMI\_PARAMETERS\_IN, AMI\_PARAMETERS\_OUT, MSG CLARIFICATIONS**

Arpad Muranyi noted that the resolution of the ATM committee to previous comments was to add some comments at the end of the BIRD noting that it was decided not to change the BIRD. There were no technical changes to BIRD137.1, simply the editorial comment change in BIRD137.2. The comments note particular exceptions in IBIS 5.0 AMI models that will cause the models to not work in an IBIS 5.1 simulator. Additional changes would need to be made to an IBIS 5.0 model to make it work properly in an IBIS 5.1 simulator.

Radek Biernacki moved to vote on approval of the BIRD. Arpad Muranyi seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – yes  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes



### **BIRD138: IBIS-AMI SECTION 6C TABLES UPDATE**

There were no comments on the BIRD.

Walter Katz moved to vote on approval of the BIRD. Arpad Muranyi seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – abstain  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes

### **BIRD139.1: RESERVED\_PARAMETERS ORDER**

Radek Biernacki had a minor editorial comment that the BIRD should clarify how far text extends after a comment character. Bob Ross suggested a modification to say that “Any text after the ‘|’ character until the end of the line will be ignored by the parser.”

Walter Katz moved to vote on approval of the BIRD with the noted change. Radek Biernacki seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – yes  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes

### **BIRD141: [COMPOSITE CURRENT] CLARIFICATIONS**

Michael Mirmak left the meeting, and Mike LaBonte took over chairing the meeting at this point.

Before leaving the meeting, Michael pre-cast affirmative votes for the remaining BIRDs and issues on the agenda.

There were no comments on the BIRD.

Randy Wolff moved to vote on approval of the BIRD. Lance Wang seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – abstain  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes

Bob Ross added that a new BUG will be written to deprecate an IBIS parser check associated with this BIRD.

#### **BIRD142: CLARIFICATIONS OF [TEST DATA] AND [TEST LOAD] SCOPING**

Mike LaBonte noted that this BIRD invalidates BUG104. He would like an agenda item for the next teleconference to vote on changing the status of BUG104.

Arpad Muranyi moved to vote on approval of the BIRD. Anders Ekholm seconded the motion. There were no objections.

The vote passed with the following vote tally:

Agilent – yes  
Altera – abstain  
AMD – yes  
Ericsson – yes  
IBM – yes  
Intel – yes  
IO Methodology – yes  
Mentor – yes  
Micron – yes  
SiSoft – yes  
Teraspeed – yes

### **BIRD133: MODEL CORNER C\_COMP**

Bob Ross noted that there was some discussion in the ATM group and over email about the BIRD. Arpad Muranyi asked for further comment over email on the discussion between him and Bob. David Banas motioned to cancel a vote on the BIRD, but the motion was withdrawn since the BIRD was not up for a vote. Walter Katz commented that IBIS was initially a measurement based specification. The idea was to take three parts representative of process corners and come up with three tables of data. C\_comp would be measured on these three parts. Bob's proposal is to correlate these three values of C\_comp to the process corners of the part. He thinks this should be considered related to this BIRD.

Arpad noted that after reading section 9 of the specification, the concept of derating applied to measured data at Intel originally meant that C\_comp was derated separately from I-V measurements. Arpad said that he was suggesting a different syntax to address the issue by defining slow and fast corners of C\_comp, so five corners would be defined. Walter felt that the two methods both fix the same issue and further discussion offline is needed to agree on which is better. Anders Ekholm commented that he did not like the use of typ/min/max as this was confusing related to other keywords in the specification. Radek Biernacki made a motion to add BIRD133 to the tabled list of BIRDS, but the motion was withdrawn.

### **BIRD140: FORMAT CORNER AND RANGE CLARIFICATION FOR IBIS-AMI**

Arpad Muranyi noted that the BIRD is being discussed in the ATM task group. Radek Biernacki and Bob Ross both added that they have objections that they want to discuss further in the ATM meeting. Arpad summarized ongoing changes to the BIRD. Changes define strings for valid corner names and define what "Typ", "Min" and "Max" corners are. Arpad mentioned that he may extend the BIRD to add more corner cases similar to his concept for C\_comp discussed earlier. Walter Katz preferred to keep discussion of C\_comp separate from this BIRD.

Walter noted that he thinks IBIS clearly does have a concept of three corners representing typical, slow and fast process corners. Walter added that there is no mechanism for the model maker to clearly define which value of C\_comp goes with a specific slow or fast corner. Arpad said that section 9 was clearly written with the intent that the model user would need to determine which corner of C\_comp creates the worst case conditions, and we want to define that differently today. Radek added that this ambiguity in the specification must be clarified. He prefers that five columns be defined in the BIRD to define all possible corners.

### **BIRD143.1: CORRECTING THE RULES FOR AMI\_CLOSE**

Bob Ross noted that this BIRD was discussed in the ATM committee and some comments were added to the end of the BIRD.

Walter Katz moved to schedule the BIRD for a vote at the next meeting. Radek Biernacki seconded. There were no objections.

### **BIRD116: ADD IBIS-ISS TO [EXTERNAL MODEL] AND [EXTERNAL CIRCUIT] AS A**

**SUPPORTED LANGUAGE**

Discussion was tabled.

**BIRD117.3: PARAMETERIZE A\_TO\_D AND D\_TO\_A CONVERTERS**

Discussion was tabled.

**BIRD118.2: ANALOG PARAMETER ASSIGNMENTS**

Discussion was tabled.

**BIRD121.1: IBIS-AMI NEW RESERVED PARAMETERS FOR DATA MANAGEMENT**

Discussion was tabled.

**BIRD122: IBIS-AMI NEW RESERVED PARAMETERS FOR ANALOG MODELING**

Discussion was tabled.

**BIRD123.1: IBIS-AMI NEW RESERVED PARAMETERS FOR JITTER/NOISE**

Discussion was tabled.

**BIRD124: IBIS-AMI NEW RESERVED PARAMETERS FOR DEPENDENCY TABLES**

Discussion was tabled.

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

Discussion was tabled.

**BIRD128: ALLOW AMI\_PARAMETERS\_OUT TO PASS AMI\_PARAMETERS\_IN DATA ON CALLS TO AMI\_GETWAVE**

Discussion was tabled.

**BIRD129: ADD "POLARITY" ARGUMENT TO D\_TO\_A CONVERTERS**

Discussion was tabled.

**BIRD 131: IBIS-AMI REPEATERS**

Discussion was tabled.

**TSIRD3: CLARIFY S-PARAMETER DEFINITION**

Radek Biernacki noted that this is a minor clarification to the specification.

Arpad Muranyi moved to schedule the TSIRD for a vote at the next meeting. Bob Ross seconded. There were no objections.

#### **IBIS-ISS SPECIFICATION DRAFT 1.5 REVIEW**

Mike LaBonte issued the third call for comments. Arpad Muranyi made a comment that he would like to change the title to "Subcircuit" instead of "Subcircuits". Bob Ross clarified that the title can be changed as part of the official vote since it is a minor editorial change.

Bob Ross moved to schedule the IBIS-ISS specification for a vote at the next meeting. Arpad seconded. There were no objections.

The IBIS-ISS draft 1.5 specification is available at:

[http://www.eda.org/ibis/ibis-iss\\_wip/](http://www.eda.org/ibis/ibis-iss_wip/)

#### **IBISCHK5 BUG STATUS**

No new BUGs.

#### **NEW TECHNICAL ISSUES**

None.

#### **NEXT MEETING**

The next IBIS Open Forum teleconference will be held October 7, 2011 from 8:00 to 10:00 AM US Pacific Time. Votes on BIRD143.1, TSIRD3, and the IBIS-ISS specification are scheduled. Arpad Muranyi moved to adjourn. Randy Wolff seconded. There were no objections.

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#### **NOTES**

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This meeting was conducted in accordance with the TechAmerica Legal Guides and TechAmerica Manual of Organization and Procedure.

The following e-mail addresses are used:

[majordomo@eda.org](mailto:majordomo@eda.org)

In the body, for the IBIS Open Forum Reflector:  
subscribe ibis <your e-mail address>

In the body, for the IBIS Users' Group Reflector:  
subscribe ibis-users <your e-mail address>

Help and other commands:  
help

[ibis-request@eda.org](mailto:ibis-request@eda.org)

To join, change, or drop from either or both:  
IBIS Open Forum Reflector ([ibis@eda.org](mailto:ibis@eda.org))  
IBIS Users' Group Reflector ([ibis-users@eda.org](mailto:ibis-users@eda.org))  
State your request.

[ibis-info@eda.org](mailto:ibis-info@eda.org)

To obtain general information about IBIS, to ask specific questions for individual response, and to inquire about joining the EIA-IBIS Open Forum as a full Member.

[ibis@eda.org](mailto:ibis@eda.org)

To send a message to the general IBIS Open Forum Reflector. This is used mostly for IBIS Standardization business and future IBIS technical enhancements. Job posting information is not permitted.

[ibis-users@eda.org](mailto:ibis-users@eda.org)

To send a message to the IBIS Users' Group Reflector. This is used mostly for IBIS clarification, current modeling issues, and general user concerns. Job posting information is not permitted.

[ibis-bug@eda.org](mailto:ibis-bug@eda.org)

To report ibischk parser BUGs as well as tschk2 parser BUGs. The BUG Report Form for ibischk resides along with reported BUGs at:

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

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

[http://www.eda.org/ibis/tschk\\_bugs/](http://www.eda.org/ibis/tschk_bugs/)  
[http://www.eda.org/ibis/tschk\\_bugs/bugform.txt](http://www.eda.org/ibis/tschk_bugs/bugform.txt)

[icm-bug@eda.org](mailto:icm-bug@eda.org)

To report icmchk1 parser BUGs. The BUG Report Form resides along with reported BUGs at:

[http://www.eda.org/ibis/icm\\_bugs/](http://www.eda.org/ibis/icm_bugs/)  
[http://www.eda.org/ibis/icm\\_bugs/icm\\_bugform.txt](http://www.eda.org/ibis/icm_bugs/icm_bugform.txt)

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

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

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

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

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

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

To create an account on the TechAmerica KAVI workspace, check out:

<http://workspace.techamerica.org/kwspub/join/>

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## IBIS CURRENT MEMBER VOTING STATUS

### I/O Buffer Information Specification Committee (IBIS)

Organization	Interest Category	Standards Ballot Voting Status	July 15, 2011	August 5, 2011	August 26, 2011	September 16, 2011
Advanced Micro Devices	Producer	Active	X	X	-	X
Agilent Technologies	User	Active	X	X	X	X
Altera	Producer	Inactive	-	-	-	X
Ansys	User	Inactive	-	-	-	-
Apple Computer	User	Inactive	-	-	-	-
Applied Simulation Technology	User	Inactive	-	-	-	-
Cadence Design Systems	User	Inactive	-	-	-	-
Cisco Systems	User	Inactive	X	X	-	-
Ericsson	Producer	Inactive	-	-	-	X
Freescall	Producer	Inactive	-	-	-	-
Green Streak Programs	General Interest	Inactive	-	-	-	-
Huawei Technologies	Producer	Inactive	-	-	-	-
IBM	Producer	Active	-	X	X	X
Infineon Technologies AG	Producer	Inactive	-	-	-	-
Intel Corp.	Producer	Active	X	X	X	X
IO Methodology	User	Inactive	X	-	-	X
LSI	Producer	Active	-	X	X	-
Mentor Graphics	User	Active	X	X	X	X
Micron Technology	Producer	Active	X	X	X	X
National Semiconductor	Producer	Inactive	-	-	-	-
Nokia Siemens Networks	Producer	Active	-	X	X	-
QLogic	Producer	Inactive	-	-	-	-
Signal Integrity Software	User	Active	X	X	X	X
Sigrity	User	Inactive	-	-	-	-
Synopsys	User	Inactive	-	-	-	-
Teraspeed Consulting	General Interest	Active	X	X	X	X
Texas Instruments	Producer	Inactive	-	-	-	-
Toshiba	Producer	Inactive	-	-	-	-
Xilinx	Producer	Inactive	-	-	-	-
ZTE	User	Inactive	-	-	X	-
Zuken	User	Inactive	-	-	-	-

#### 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 TECHAMERICA 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.