

IBIS Open Forum Minutes

Meeting Date: **January 6, 2012**

Meeting Location: **Teleconference**

VOTING MEMBERS AND 2012 PARTICIPANTS

Agilent	Radek Biernacki*
Altera	David Banas*
AMD	(Nam Nguyen)
ANSYS (Ansoft)	(Steve Pytel)
Apple Computer	(Matt Herndon)
Applied Simulation Technology	(Fred Balistreri)
Cadence Design Systems	Terry Jernberg*
Cisco Systems	(Tony Penaloza)
Ericsson	(Anders Ekholm)
Foxconn Technology Group	(Sogo Hsu)
Freescale	(Jon Burnett)
Green Streak Programs	(Lynne Green)
Huawei Technologies	(Jinjun Li)
IBM	Adge Hawes*
Infineon Technologies AG	(Christian Sporrer)
Intel Corporation	Michael Mirmak*
IO Methodology	Lance Wang^
LSI	Brian Burdick*
Mentor Graphics	Arpad Muranyi*
Micron Technology	Randy Wolff*
Nokia Siemens Networks GmbH	Eckhard Lenski*
QLogic	(James Zhou)
Signal Integrity Software	Walter Katz*, Mike LaBonte*
Sigrity	(Raymond Chen)
Synopsys	(Andy Tai)
Teraspeed Consulting Group	Bob Ross*
Texas Instruments	(Pavani Jella)
Toshiba	(Yasumasa Kondo)
Xilinx	(Raymond Anderson)
ZTE	(Huang Min)
Zuken	(Michael Schaefer)

OTHER PARTICIPANTS IN 2012

TechAmerica	(Chris Denham)
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In the list above, attendees at the meeting are indicated by *. Participants who submit votes by email but do not attend 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
January 27, 2012	205 475 958	IBIS
February 2, 2012	IBIS Summit at DesignCon – no telephone bridge	

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

NOTE: "AR" = Action Required.

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 November 15, 2011 Asian IBIS Summit – Shanghai, the November 18, 2011 Asian IBIS Summit – Yokohama, the November 21, 2011 Asian IBIS Summit – Taipei and the December 9, 2011 IBIS Open Forum teleconference. The minutes were approved without changes.

MEMBERSHIP STATUS AND TREASURER'S REPORT

Bob Ross reported that we are at 31 members as of end of the year. There has been no response from TechAmerica regarding financial matters. Michael Mirmak was asked for 2012 financial planning information by TechAmerica, and he responded that he cannot plan until he

has more information about the 2011 financials.

WEB PAGE UPDATES

Mike LaBonte reported that he added Foxconn to the roster page and the poster page.

MAILING LIST ADMINISTRATION

Mike LaBonte reported that the issue with SMTP servers at Stanford has subsided. The amount of spam being sent out declined, so the server score improved to 79. Mike described the sender scores in more detail upon request by Michael Mirmak.

Mike noted that the mail list archive's default mode of display is threaded. Recent emails sent out concerning Summits in Asia were not showing up. The threading algorithm had decided to group these emails with emails related to old summits. Mike changed the default view to sorted- by-date to fix this display issue.

MODEL LIBRARY UPDATE

No update.

MISCELLANY/ANNOUNCEMENTS

Bob Ross added that he meant to mention in an earlier update that there were about 470 participants in IBIS meetings over 2011.

OPENS FOR NEW ISSUES

Bob Ross requested time to discuss dues for 2012 and briefly the European IBIS Summit.

INTERNATIONAL/EXTERNAL ACTIVITIES

- IEEE DASC

Michael Mirmak noted that he would combine the update with the IEC update later in the meeting.

- VHDL-AMS Table-Driven Models

Arpad Muranyi noted that the last meeting was earlier in December. Work is progressing on the table-driven model format.

More information can be found at:

http://www.eda.org/twiki/bin/view.cgi/P10761/ProjectsArea#Table_driven_Modeling_Champion_J

- Conferences

SPI2012 (18th IEEE Workshop on Signal and Power Integrity) will be held May 13-16, 2012 in Sorrento, Italy. We are offered a free room on Wednesday afternoon for hosting an IBIS Summit meeting. More information can be found at:

<http://www.spi2012.org>

Official IBIS participation is not planned for all 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

Michael Mirmak reported that we were engaged with IEEE DASC towards the end of 2011 to have IBIS approved as an IEEE standard. He was informed early this week that IEEE discovered a policy that prohibits them from approving standards that are already ANSI standards. Since IBIS is already an ANSI standard, it is therefore not eligible to become an IEEE standard. TechAmerica is looking into an alternative, a joint logo agreement between TechAmerica and IEEE. Unless we let ANSI standardization lapse, we can't work with IEEE.

Randy Wolff added that we will have to work directly with the IEC now. We are in contact with all the right people including Victor Berman and Dennis Brophy. Victor emailed that he would keep us informed about the IEC TC93 meeting schedules including a meeting coming up in September.

Radek Biernacki asked if we can standardize a future IBIS standard through IEEE. Michael responded that we can, but we can't do TechAmerica balloting first, because this would give us ANSI standardization. The choice is that we either stick with TechAmerica for ANSI then go through normal IEC channels or work exclusively with IEEE DASC.

SUMMIT STATUS

- DesignCon 2012

The IBIS Summit is scheduled for Thursday, February 2, 2012. It will be in the Great America Ballroom 1. The second call for participation went out. A dozen participants signed up so far. Michael Mirmak mentioned that sponsorship opportunities are still available. Lance Wang will be the official contact for sign-ups. Presentations submitted and reviewed by the 25th of January will have copies made; otherwise presenters should bring their own copies to distribute.

-European IBIS Summit 2012

Bob Ross discussed the European IBIS Summit. He is looking into sponsorships for the meeting that will take place May 16, 2012 after the SPI conference. The meeting is on the IBIS calendar.

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 discussing the status of the ibischk parser with relation to AMI features. The group is meeting every two weeks. The next meeting is on Tuesday, January 10 at 8:00AM Pacific time.

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

http://www.eda.org/ibis/quality_wip/

MODEL REVIEW TASK GROUP

No update.

ADVANCED TECHNOLOGY MODELING TASK GROUP

Arpad Muranyi reported that the group submitted last week the first new feature BIRD on jitter, BIRD123. They are now talking over the AMI analog modeling BIRDS. Bob Ross noted that he didn't see the new BIRD123 uploaded. Michael Mirmak received the BIRD but had some questions on numbering of the BIRD. Bob clarified that it should be BIRD123.2, not BIRD123.3. Arpad added that there is a new clarification BIRD pending related to Usage Out. It is up for a vote at the ATM meeting next week.

Task group material can be found at:

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

EDITORIAL TASK GROUP

Michael Mirmak reported that the group will resume meeting Wednesday, January 11 at 9:00AM Pacific time. The TechAmerica editor wrote Michael out of the blue with good news that he will have a draft IBIS 5.1 ready for review by the 11th.

The IBIS reformatting documentation can be reviewed at:

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

NEW ADMINISTRATIVE ISSUES

Bob Ross noted that we need to decide whether to keep the dues at \$900 per year or increase them. Without information from TechAmerica, we have no basis for determining financial needs for 2012. As such, he sees no need to increase the dues. If TechAmerica shows a financial shortfall for 2011, that will at least force the issue of the need for timely financial updates.

Bob moved to keep the dues at \$900 for 2012. Randy Wolff seconded. There were no objections to the motion.

BIRD133: MODEL CORNER C_COMP

Bob Ross noted that there have been no changes to the BIRD. There have been discussions on C_comp in the ATM group, but no other proposals for handling the same issue have been put forward. Radek Biernacki commented on a small typo on page 2 to replace 'and' with 'any'. Radek expressed reservations on whether this is the best solution long-term for handling C_comp. Existing text in Section 9 is a bit vague, so this BIRD does clarify this. For other min/max clarifications, this BIRD would establish a precedence of using override keywords. Bob agreed but added that this BIRD fixes the largest issue at hand. He noted that the BIRD was written by cutting and pasting existing C_comp language to keep the rules the same under a new keyword. The general solution to min/max corners is much more complex.

Bob also added that he wanted to change 'define buffer capacitance' to 'define die capacitance' to be consistent with existing C_comp language.

Bob moved to vote on inclusion of the BIRD with noted changes in the next version of IBIS. Randy Wolff seconded. The vote passed with the following vote tally:

Agilent – abstain
Altera – abstain
Cadence – yes
IBM – yes
Intel – yes
IO Methodology – yes (by email)
LSI – yes
Mentor – abstain
Micron – yes
Nokia Siemens Networks – yes
SiSoft – yes
Teraspeed – yes

BIRD140.2: FORMAT CORNER AND RANGE CLARIFICATION FOR IBIS-AMI

Arpad Muranyi noted an editorial change was made on request from Radek Biernacki.

Radek Biernacki moved to vote on inclusion of the BIRD in the next version of IBIS. Arpad seconded. The vote passed with the following vote tally:

Agilent – yes
Altera – yes
Cadence – yes
IBM – yes
Intel – yes
IO Methodology – yes (by email)
LSI – yes
Mentor – yes

Micron – yes
Nokia Siemens Networks – yes
SiSoft – yes
Teraspeed – yes

BIRD148: ALLOWABLE MODEL_TYPES WITH IBIS-AMI

Arpad Muranyi noted there has been no further discussion on the BIRD.

Arpad moved to vote on inclusion of the BIRD in the next version of IBIS. Bob Ross seconded. The vote passed with the following vote tally:

Agilent – yes
Altera – yes
Cadence – yes
IBM – yes
Intel – yes
IO Methodology – yes (by email)
LSI – yes
Mentor – yes
Micron – yes
Nokia Siemens Networks – yes
SiSoft – yes
Teraspeed – yes

BIRD144.1: ADD TOUCHSTONE TO [EXTERNAL MODEL] AND [EXTERNAL CIRCUIT] AS A SUPPORTED LANGUAGE

Bob Ross noted that the BIRD is currently being discussed in the ATM task group.

Bob moved to table the BIRD for discussion. Terry Jernberg seconded. There were no objections.

BIRD145.1: CASCADING IBIS I/O BUFFERS WITH [EXTERNAL CIRCUIT]S USING THE [MODEL CALL] KEYWORD

Bob moved to table the BIRD for discussion. Terry Jernberg seconded. There were no objections.

BIRD147: BACK-CHANNEL SUPPORT

Bob moved to table the BIRD for discussion. Terry Jernberg 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.

Arpad Muranyi noted that the BIRD has been revised as BIRD123.2 and discussion has ended in the ATM group. The BIRD will be posted within the next week and will be up for discussion at the next meeting.

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.

IBISCHK5 BUG STATUS

Bob Ross noted no change in BUG status. There are 5 AMI related BUGs that remain open. The error list document is still being worked on. Out of 1156 error numbers, 732 now have comments. Bob may give an update on progress on the error list document at DesignCon. Many of the checks are now considered 'not used'.

TSCHK2 BUG STATUS

Michael Mirmak introduced BUG1, "Vague Option Error Message". If you run the tschk2 parser, you see an error message come up if there are questionable option lines in the input file. The error message leads you to believe the error is in the options in the command line, not the options in the input file. Radek Biernacki suggested the new error message say 'Touchstone file' instead of 'input file'. Bob Ross noted that this BUG relates to two other error messages, errors E2101 and E2102 and thinks that verbiage should be updated for these error messages as well. Michael will add a note to the BUG. The BUG was classified as Annoying severity, Low priority and Open status. Radek suggested the BUG be fixed along with a new parser for Touchstone 2.1.

NEW TECHNICAL ISSUES

None.

NEXT MEETING

The next IBIS Open Forum teleconference will be held January 27, 2012 from 8:00 to 10:00 AM US Pacific Time. The next Open Forum Summit will be held February 2, 2012 at DesignCon. No phone bridge will be available.

Radek Biernacki moved to adjourn. Arpad Muranyi 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

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

To join, change, or drop from either or both:

IBIS Open Forum Reflector (ibis@eda.org)
IBIS Users' Group Reflector (ibis-users@eda.org)
State your request.

ibis-info@eda.org

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

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

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

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/bugform.txt

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/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	November 18, 2011	November 21, 2011	December 9, 2011	January 6, 2012
Advanced Micro Devices	Producer	Inactive	X	-	-	-
Agilent Technologies	User	Active	X	-	X	X
Altera	Producer	Inactive	-	-	-	X
ANSYS	User	Inactive	X	X	-	-
Apple Computer	User	Inactive	-	-	-	-
Applied Simulation Technology	User	Inactive	X	-	-	-
Cadence Design Systems	User	Active	X	X	X	X
Cisco Systems	User	Inactive	-	-	-	-
Ericsson	Producer	Active	X	X	X	-
Foxconn Technology Group	Producer	Inactive	-	X	-	-
Freescale	Producer	Inactive	X	-	-	-
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
IO Methodology	User	Active	-	X	X	X
LSI	Producer	Active	-	-	X	X
Mentor Graphics	User	Active	X	-	X	X
Micron Technology	Producer	Active	-	-	X	X
Nokia Siemens Networks	Producer	Active	-	-	X	X
QLogic	Producer	Inactive	-	-	-	-
Signal Integrity Software	User	Active	-	-	X	X
Sigrity	User	Active	-	X	X	-
Synopsys	User	Inactive	-	-	-	-
Teraspeed Consulting	General Interest	Active	X	X	X	X
Texas Instruments	Producer	Inactive	-	-	-	-
Toshiba	Producer	Inactive	X	-	-	-
Xilinx	Producer	Inactive	-	-	-	-
ZTE	User	Inactive	-	-	-	-
Zuken	User	Inactive	X	-	-	-

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.