IBIS Chair’s Report

Mike LaBonte
SiSoft
Chair, IBIS Open Forum

DesignCon IBIS Summit
Santa Clara, CA
January 22, 2016

http://ibis.org/
23-24 IBIS Open Forum Members

Our Members

Number of Members

Organization
IBIS Officers 2015-2016

- New Chair, Treasurer and Postmaster elected 15 June 2015
- Many thanks to incumbent IBIS officers for their continued service

A special thank you to outgoing chair Michael Mirmak
(Total of 11 terms!)

Chair: Mike LaBonte, Signal Integrity Software
Vice-Chair: Lance Wang, IO Methodology Inc.
Secretary: Randy Wolff, Micron Technology
Treasurer: Bob Ross, Teraspeed Labs
Librarian: Anders Ekholm, Ericsson
Webmaster: Mike LaBonte, Signal Integrity Software
Postmaster: Curtis Clark, ANSYS
Organizational Status

• IBIS Open Forum: ad-hoc, unincorporated
• SAE Industry Technologies Consortia 501(c)(6)
  – Affiliate of SAE International
  – Fiscal sponsor: receive and disburse funds
  – Legal assistance
  – Liability insurance
  – Access to SAE web, publishing support, etc.
  – IBIS is one of four ITC clients
  – New organization, still in formation process
### IBIS Milestones

<table>
<thead>
<tr>
<th>I/O Buffer Information Specification</th>
<th>Other Work</th>
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<tr>
<td><strong>1993-1994 IBIS 1.0-2.1:</strong></td>
<td><strong>1995: ANSI/EIA-656</strong></td>
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<tr>
<td>– Behavioral buffer model (fast simulation)</td>
<td>– IBIS 2.1</td>
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<td>– Component pin map (easy EDA import)</td>
<td><strong>1999: ANSI/EIA-656-A</strong></td>
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<td><strong>1997-1999 IBIS 3.0-3.2:</strong></td>
<td>– IBIS 3.2</td>
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<td>– Package models</td>
<td><strong>2001: IEC 62014-1</strong></td>
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<tr>
<td>– Electrical Board Description (EBD)</td>
<td>– IBIS 3.2</td>
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<tr>
<td>– Dynamic buffers</td>
<td><strong>2003: ICM 1.0</strong></td>
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<td><strong>2002-2006 IBIS 4.0-4.2:</strong></td>
<td>– Interconnect Model Specification</td>
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<td>– Receiver models</td>
<td><strong>2006: ANSI/EIA-656-B</strong></td>
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<td>– AMS languages</td>
<td>– IBIS 4.2</td>
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<td><strong>2007-2012 IBIS 5.0-5.1:</strong></td>
<td><strong>2009: Touchstone® 2.0</strong></td>
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<td>– IBIS-AMI SerDes models</td>
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<td>– Power aware</td>
<td><strong>2011: IBIS-ISS 1.0</strong></td>
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<tr>
<td><strong>2013-2015 IBIS 6.0-6.1:</strong></td>
<td>– Interconnect SPICE Subcircuit specification</td>
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<tr>
<td>– PAM4 multi-level signaling</td>
<td><strong>2013-2015 IBIS 6.0-6.1:</strong></td>
</tr>
<tr>
<td>– Power delivery package models</td>
<td>– PAM4 multi-level signaling</td>
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*Touchstone® is a registered trademark of Agilent Technologies, Inc.*
Recent Progress: IBIS 6.1 Ratified

• Ratified 11 September 2015
  – Support for PAM4
  – Dependent IBIS-AMI Parameter Support (AMI.Resolve)
  – Package Models for Power Integrity
  – and more …

• IBISCHK 6.1.2 available
In The Works

• Advanced Technology Modeling Task Group
  – Reference node clarifications (IBIS 6.2)
  – Optimization/Back-channel support
  – External circuit enhancements

• Interconnect Task Group
  – External Package/on-die models using IBIS-ISS

• IBIS Quality Task Group
  – IBISCHK enhancements and documentation
Pending BIRDs

Highest priority current work is on BIRDs not yet submitted
Workflow Enhancement Ideas

• Automatic BIRD expiration?
  – Pressure to keep momentum

• More task groups?
  – Increased “parallelism”

• Break up the BIRD?
  1. BIDD: Buffer Issue Definition Document
     • Settle problem definition and solution requirements first
     • For enhancements, not required for fix and clarification BIRDs
  2. Solutions are proposed and discussed
     • Refer to BIDD number
  3. One or more BIRDs submitted against BIDD

• ...?
We Have Moved!

• Our gratitude to Accellera for eda.org web and email service from 1993 to 2015
• Email lists have moved to freelists.org
• Website has moved to http://ibis.org
Same Website For Now

- Manually edited HTML
- Server shell login required
- Not great on phones
New Website In The Works

- MediaWiki
- Searchable
- Multi-User
- Adapts to phones
Interactive Multi-User Website
[Thank You]

IBIS Open Forum:
Web: http://ibis.org
Email: ibis-info@freelists.org

We welcome participation by all IBIS model makers, EDA tool vendors, IBIS model users, and interested parties.