JEITA IBIS Promotion Working Group Report

Asian IBIS Summit
Tokyo, Japan
November 18, 2016

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JEITA/EC Center Committee Organization

General meeting
Management Board
Steering Committee

Advisory Group
Standardization Committee
Supply Chain Management Committee
Engineering Chain Management Committee
Information Technology Committee

Technical Committee for Standardization
Standardization Committee of Business Relations
IBIS Promotion Working Group

Reference
>> Organization of JEITA: http://www.jeita.or.jp/english/about/secret/index.htm
>> EC center home page: http://ec.jeita.or.jp/eng/

As of November 2016
Objective: Let’s Use IBIS Simulation

- Promoting IBIS simulation, for High-quality, Low cost and Fast delivery electronics product design

Example of IBIS issue

Semiconductor Company

- IBIS 3.2
- IBIS 5.1
- IBIS 6.0
- SI/PI
- V-T Curve
- I-V Table
- ISS
- ISO

System Company

Give me IBIS 5.1!

Do you need Power model?
AMI Model?
Do you use Linux?
IBIS 3.2 is not enough??

IBIS Modeling
- How to develop IBIS 5.1
- AMI models

I don’t know.....

IBIS simulation
- Use SPICE?
- V-T ?, AMI ?
- I have EBD model for memory
Activities status: outline

- Define IBIS simulation procedure guideline
  - Simulation Guideline for target topologies

- IBIS promotion of utilization
  - IBIS Seminar
    - Provide any IBIS related information
      - IBIS Keyword Summary
      - Advanced IBIS technology guidance

- Asian IBIS Summit, Japan
  - Support IBIS Open Forum for all logistics

- Maintain IBIS Quality WG results
  - IBIS Quality Framework Home Page
  - JEITA Book: “SI Simulation Model Handbook”
Activity 1: IBIS Basic Seminar

- 2\textsuperscript{nd} JEITA IBIS free seminar on June 14, 2016
  "IBIS Simulation Basic Seminar"
  - Recommended IBIS simulation procedure
  - IBIS keyword summary
  - Advanced IBIS technology guidance

Voice of Attendees
- More information about IBIS-AMI and Power aware IBIS simulation.
- I would like you to offer IBIS-AMI seminars.
Activity 2: IBIS-AMI Seminar

• 3rd JEITA IBIS free seminar on November 18, 2016
  (In the morning of IBIS Summit day)

"IBIS-AMI First Step"
  – Hi-speed signal standards and IBIS
  – IBIS-AMI simulation mechanism
  – General IBIS-AMI simulation procedure

We summarized the information about IBIS-AMI model's Background, Simulation mechanism, Procedure and Notes for accurate simulation
For understanding the needs of Japanese engineers, we surveyed the 2\textsuperscript{nd} and 3\textsuperscript{rd} seminar attendees.

- Number of responses
  2\textsuperscript{nd} 2016/6/14 : 129
  3\textsuperscript{rd} 2016/11/18 : 137

We will decide the specific activities based on the survey results.
Analysis of seminar attendees (2/3)

Years of IBIS simulation experience

- Experienced engineers are interested in IBIS-AMI
- A lot of IBIS beginners attended the IBIS basic seminar

Have you ever used the following IBIS models (multiple answers)

- Already one third people use IBIS-AMI
### Analysis of seminar attendees (3/3)

#### What issues concern you with IBIS?

<table>
<thead>
<tr>
<th>Issue</th>
<th>2016/6/14</th>
<th>2016/11/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not supplied IBIS</td>
<td>29%</td>
<td>31%</td>
</tr>
<tr>
<td>Understanding the model</td>
<td>18%</td>
<td>15%</td>
</tr>
<tr>
<td>Discrepancy between Simulation &amp; measurement</td>
<td>24%</td>
<td>20%</td>
</tr>
<tr>
<td>How to create models</td>
<td>34%</td>
<td>23%</td>
</tr>
<tr>
<td>How to start Simulations</td>
<td>20%</td>
<td>17%</td>
</tr>
</tbody>
</table>

#### Who do you consult with about IBIS simulation?

<table>
<thead>
<tr>
<th>Source</th>
<th>2016/6/14</th>
<th>2016/11/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>In house engineers</td>
<td>61%</td>
<td>58%</td>
</tr>
<tr>
<td>EDA vendors</td>
<td>30%</td>
<td>41%</td>
</tr>
<tr>
<td>IBIS providers (LSI vendors)</td>
<td>26%</td>
<td>32%</td>
</tr>
<tr>
<td>External consultants</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Nobody</td>
<td>14%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Experienced engineers resolve in cooperation with EDA and/or Device vendor

Model availability is still a major problem
END