JEITA activity;

IBIS Guide for JAPANESE Engineer

Asian IBIS Summit
Tokyo, Japan
September 14, 2007

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Contents of presentation

• Brief introduction of IBIS OPEN Forum & JEITA activity

• Introduction of IBIS guide in JAPANESE
• In 1992 INTEL was designing PCI
• SPICE models were very hard to get
• Behavioral model developed
• Standardization started with several EDA vendors
• IBIS OPEN FORUM established
IBIS --- Evolution

Ver. 1.0; Released April 1993
First release to the public

Ver. 2.1; ANSI/EIA-656 Approved Dec. 1995
Became Industrial standard

Ver. 3.2; ANSI/EIA-656-A Approved Sept. 1999
With several enhancements as;
EBD model, Differential, Model selector

Ver. 4.2; ANSI/EIA-656-B Approved 2007
Upgrade with multilingual model
Ver. 3.2 models are widely used & accepted among design community
Strong EDA tool support

System design using IBIS models became standard method
**IBIS Structure**

- **GEIA**
  - Health Care Committee
  - System, Standards & Technology Council
  - Others
  - Homeland Security Committee

**IBIS Committee**

- Board Member
  - Michael Mirmak --- Chair
  - Syed Huq – Vice-Chair
  - Randy Wolff – Secretary
  - Lance Wang – Model Librarian
  - Bob Ross – Postmaster/"Parliamentarian"

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**Official paid member companies**

- 34 members in 2006
- Including worldwide major
- IBIS Users, IBIS Creators
- & EDA vendors

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Ver. 1.0; Released April 1993

Ver. 1.1; Released June 1993 by the IBIS Open Forum at DAC, Dallas

Ver. 2.0; Ratified June 1994 by the IBIS Open Forum at DAC, San Diego

Ver. 2.1; ANSI/EIA-656 Approved Dec. 1995

Ver. 3.0; Ratified June 1997 by the IBIS Open Forum at DAC, Los Angeles

Ver. 3.1; Editorial changes implemented.

Ver. 3.2; ANSI/EIA-656-A Approved Sept 1999.

Ver. 4.0; Ratified July 2002 by the IBIS Open Forum

Ver. 4.1; Ratified February 2004 by the IBIS Open Forum

Ver. 4.2; ANSI/EIA-656-B Approved 2007
IBIS OPEN Forum member from JEITA

Official IBIS forum members from JEITA representing model creator.

- NEC Electronics Corporation
  Takeshi Watanabe
- Toshiba Corporation
  Yasumasa Kondo
- Hitachi ULSI Systems
  Kazuyoshi Shoji
JEITA activity for supporting IBIS

JEITA is supporting IBIS with WG members as:

• EDA WG leader
  Takeshi Watanabe
• IBIS quality
  Yasumasa Kondo
• Interconnect modeling
  Hiroaki Ikeda
• Promotion
  Kazuyoshi Shoji
Voice from Japanese Engineer

- What is IBIS so far?
- 150 pages of spec. in English! I don’t want to read it.
- Spec. is written in very fuzzy words. What does it mean exactly?
- Need guide in JAPANESE
Guidebook

• Objective
  Help Japanese design engineer to understand IBIS spec. and usage
  Provide a reference book in JAPANESE
Contents of the guidebook

- Introduction to IBIS
- Detailed description of spec.
- Basic usage of the models
- Creation of models
- New direction & technology
Introduction to IBIS

• Brief history and background of IBIS
• Present status
• Basic example of design, using the models
Detailed description of spec.

• Not a direct translation of the spec.
• Description of key words
• Explain the meaning and intention of key words
• Including some clean-ups
Basic usage of the models

- Several case study from EDA vendors
- Some key technique of using IBIS
- Good reference for beginners
- Help understands Tools

More EDA vendor
Welcome!
Creation of models

- Understanding of basic model creation
- Translation of IBIS cookbook
New direction & technology

- Some new topics with ver.4.2 and later
- Interconnect modeling
- EMI issue
- New technology under discussion
Tentative schedule

• Internal draft due end of 2007
• Publish from JEITA early 2008
Summary

- System design with IBIS model is now very popular worldwide and in JAPAN
- JEITA is working with IBIS OPEN Forum for promoting IBIS
- For JAPANESE engineer IBIS guidebook from JEITA is planned
Thank you!

Any question? Mail to:

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