Introducing IBIS

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Agenda

• IBIS – A Review
• Specifications and Technologies
• How Changes Are Made
• How to Get Involved
• References

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IBIS – A Review

• IBIS – I/O Buffer Information Specification, Ver. 5.0
  – Standardized as ANSI/EIA* 656-B, IEC* 62014
  – Managed by the IBIS Open Forum
  – Originally analog: resistance, transition speed, capacitance
  – Package modeling included in early revisions

• Extended in recent years
  – AMS: Verilog-A, Verilog-AMS, VHDL-AMS support
  – AMI: Algorithmic Modeling Interface for advanced SerDes

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Specifications and Technologies

• IBISCHK5: Free IBIS Syntax Checker and Parser
  – www.eda.org/ibis/ibischk5/

• IBIS Quality Specification
  – Defines a structured rating system for IBIS models

• Touchstone 2.0
  – Network parameter descriptions (e.g., S-parameters)

• IBIS Interconnect Modeling (ICM) Specification
  – Generic transmission line modeling format
  – Also links to S-parameters through Touchstone
How Changes Are Made

• **BIRDs: Buffer Issue Resolution Documents**
  - Change proposals for the IBIS specification
  - Submitted by individuals or Task Groups
  - If approved by IBIS Open Forum, included in future IBIS specification versions

• **BUGs: IBIS Parser issues**
  - Violations of the specification, unexpected behaviors or requests for improvement
  - Usually submitted by individuals

• **TSIRDS: Touchstone Issue Resolution Documents**
  - Similar to BIRDs, but for Touchstone 2.0
How to Get Involved

• E-mail Reflectors – Discussion welcome!
  – ibis@eda.org for administration and change updates
  – ibis-users@eda.org for usage questions
  – To subscribe, write to ibis-info@eda.org

• IBIS Open Forum teleconferences every 3 weeks

• Task Groups
  – Advanced Technology Modeling
  – Model Review (EDA vendors)
  – Interconnect
  – Quality

Your participation helps IBIS provide the standard, unified solutions needed by industry!
References

• IBIS Web site: www.eda.org/ibis/
  - Links to Task Groups available there

• Specifications
  - IBIS 5.0: www.eda.org/ibis/ver5.0/
  - Touchstone: www.eda.org/ibis/touchstone_ver2.0/
  - ICM: www.eda.org/ibis/icm_ver1.1/

• BIRDs
  - www.eda.org/ibis/birds/

• IBIS 4.0 Cookbook
  - www.eda.org/ibis/cookbook/

• Training
  - www.eda.org/ibis/training/

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