



# IBIS Projects and Activities

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Asian IBIS Summit

Tokyo, Japan

November 15, 2010

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CONSULTING  
GROUP**

# IBIS Organization

- TechAmerica ([www.techamerica.org](http://www.techamerica.org))
  - Top level organization (offices around the world)
  - Merger of several standards and trade organizations
  - IBIS under SSTC (Standards and Technology Council)
- IBIS Officers 2010 - 2011
  - Chair: Michael Mirmak, Intel Corporation
  - Vice-Chair: Lance Wang, IO Methodology
  - Librarian: Anders Ekholm, Ericsson
  - Secretary: Randy Wolff, Micron Technology
  - Webmaster: Syed Huq, Cisco Systems
  - Postmaster: Mike LaBonte, Cisco Systems
  
  - (Past Chair): Bob Ross, Teraspeed Consulting Group



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# IBIS Active Since 1993

- Regular IBIS meetings
  - Teleconference/Web meetings every 3 weeks
  - Several standards and documents and parsers
- IBIS Summits (about 5-6 per year)
  - China, Taiwan, Japan, Europe, and USA (2)
- Active task groups with leading experts
  - **Advanced Technology Modeling** - AMI work
  - **Quality** - IBIS Quality Specification
  - **Interconnect** - Touchstone Spec., IBIS-ISS, MCP, ICM
  - **IBIS Model Review** – Free review service



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# Current Projects

- **IBIS-ISS** (IBIS-Interconnect Spice Subcircuits)
- **IBIS-AMI** (IBIS-Algorithmic Model Interface)
- Possible IBIS multi-lingual linkages with IBIS-ISS
- **MCP** – Model Connection Protocol
- **Touchstone Version 2.1** (future)
- **IBIS Version 5.1** (future)
- **IBIS Version 5.0** (ongoing support)
- **ibischk5** (maintenance)
- Quality Committee advances



# Brief Description - I

## (\* topics today)

- IBIS-ISS \*
  - IBIS connection with Spice
  - Mostly an HSPICE subset with Synopsys permission
  - Separate specification
- IBIS-AMI \*
  - Cleanup of specification (ibischk5 –ami <file> development revealed specification problems)
  - New features under discussion
- IBIS linkage to IBIS-ISS through [External Model] and [External Circuit] \*
  - Under discussion
  - Allows passing parameters into Spice subcircuits



# Brief Description - 2

## (\* topics today)

- MCP \*
  - Allows connections to die, package, board, and more
  - Specification format being discussed
  - Signal and power path grouping
- Touchstone Version 2.1
  - Sparse matrix mapping
  - Binary format
- IBIS Version 5.1
  - Would include IBIS-AMI advance and IBIS-ISS linkages
  - Many BIRDs being processed
  - Reformatting into true .doc and .pdf document with true graphics (starting with Version 5.0)



# Brief Description - 3

## (\* topics today)

- IBIS Version 5.0 \*
  - Model extraction and size issues
  - Power distribution modeling (SSO)
  - EMI/EMC issues
- IBISCHK5 Version 5.0.4 and beyond support
  - New bug fixes and some broken checks fixed
  - New regression test data structure
- Quality activities \*
  - Investigating correlation methods
  - Investigating general test loads, test data via external files and linkages to IBIS-ISS



# Useful Links Under IBIS

Home Page: [www.eda.org/ibis/](http://www.eda.org/ibis/)

[ver5.0/](#)

[ibischk5/](#)

**IBIS Version 5.0** (August 29, 2008)

**ibischk5 Version 5.0.3** (February 2010)

[touchstone\\_ver2.0/](#)

[tschk2/](#)

**Touchstone Version 2.0** (April 24, 2009)

**tschk2 Version 2.0.0** (December 2009)

[quality\\_ver2.0/](#)

**IBIS Quality Specification** (Oct. 30, 2009)

[ibis-iss\\_wip/](#)

**IBIS-ISS** (recent versions wip)

[interconnect\\_wip/](#)

[macromodel\\_wip/](#)

[quality\\_wip/](#)

**Interconnect Task Group** (wip)

**Advanced Technology Task Group** (wip)

**Quality Task Group** (wip)

(wip: work in progress)



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