



IBIS Activities

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Hildesheim, Germany
May 12, 2010
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IBIS Organization

- Officers
 - Chair: **Bob Ross**, Teraspeed Consulting Group
 - Vice-Chair: **Lance Wang**, IO Methodology
 - Secretary: **Randy Wolff**, Micron Technology
 - Webmaster: **Syed Huq**, Cisco Systems
 - Postmaster: **Mike LaBonte**, Cisco Systems
 - Librarian: **Anders Ekholm**, Ericsson
- Active task groups
 - **IBIS Model Review** – Free review service
 - **Quality** - IBIS Quality Specification, correlation
 - **Interconnect** - Touchstone Spec., ICM, MCP
 - **Advanced Technology Modeling** - AMI work



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“ibischk5” Parser (2009)

- Ibischk5, Version 5.0.3
 - Free executables: <http://www.eda.org/pub/ibis/ibischk5/>
 - Supports IBIS Version 5.0 (ratified 2008)
 - Algorithmic model interface for Serdes analysis
 - Power delivery system SSO and gate modulation
 - EMI parameters
 - Other – (area based thresholds)
- Checks all [IBIS Ver]s of IBIS files
- Over \$100,000 of contracted work since 1993
- Supports .ibs, .pkg, .ebd, and .ami formats directly or through linkages

New Flags in ibischk5

```
Usage: ibischk5      <IBS filename>
      : ibischk5 -ebd <EBD filename>
      : ibischk5 -pkg <PKG filename>
      : ibischk5 -ami <AMI filename>
Usage: ibischk5 -caution -numbered <IBS filename>
      : ibischk5 -caution -numbered -ebd <EBD filename>
      : ibischk5 -caution -numbered -pkg <PKG filename>
      : ibischk5 -caution -numbered -ami <AMI filename>
```

The flags prior to the file name can be in any order, and the -caution and/or -numbered flags are optional.

- **-ami** for <file_name>.ami (algorithmic model interface control file)
- **-numbered** for numbered **E**rror, **W**arning, **N**otes and **C**autions messages

ibischk5 {-numbered} -ami file4.ami

Checking file4.ami for IBIS 5.0 Compatibility...

ERROR - Illegal Usage value A specified for Param1
ERROR - Illegal Type value B specified for Param1
ERROR - Illegal Format value C specified for Param1
ERROR - No Reserved_Parameters found

Errors : 4

File Failed

Checking file4.ami for IBIS 5.0 Compatibility...

E4627 - Illegal Usage value A specified for Param1
E4627 - Illegal Type value B specified for Param1
E4627 - Illegal Format value C specified for Param1
E4622 - No Reserved_Parameters found

Errors : 4

File Failed



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“tschk2” Parser (2009)

- Checks Touchstone Version 1.0 (TS1) and Version 2.0 (TS2)
 - Error and Warning numbers
 - Free executables: <http://www.eda.org/pub/ibis/tschk2/>
- Converts TS1 to TS2, TS2 to TS1 where practical with **-canonical*** flags
- Provides comment headers and real, imaginary format (RI) with **-describe** flag
- Source code package includes 440+ test cases
- C++, well documented
- Thanks to contractor Agilent Technologies



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tschk2 {-canonical*} FILE

- **{-canonical | -canonical-v2}**
 - **TS1, TS2 → TS2**
 - Provides number of ports, frequencies and other information
 - Un-normalizes TS1 Y-, Z-, G- and H-parameters and effective noise resistance
- **{-canonical-v1}**
 - **TS1, TS2 → TS1** where practical
 - Applies column formatting rules and 2-port 2I_I2 ordering
 - Normalizes TS2 Y-, Z-, G- and H-parameters and effective noise resistance
 - No mixed mode or selectable reference resistance processing

Projects, Activities

- IBIS Version 5.1 – improved AMI
 - ibischk5, Version 5.0.X – bug fixes, Version 5.1.0 with improvements
- Touchstone 2.1 – adds sparse matrix mapping and binary format
 - tschk2, Version 2.1.0
- IBIS Interconnect Subcircuit Spice (IBIS-ISS)
- Model Connection Protocol (MCP)
- Correlation specification in Quality task group
- IBIS summits, thanks Ralf Bruening and Eckhard Lenski for arranging the European IBIS Summits



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