IBIS Futures Roadmap

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Agenda

- **IBIS History**
  - Specification Revisions
  - Parser Revisions
  - Challenge for the Future

- **Call to Action!**
  - Proposed Development Guidelines
  - Proposed Two-year Roadmap
  - Futures Subcommittee
  - Cookbook & Training

- **Volunteers?**
IBIS History

- **Specification Revisions**
  - IBIS 1.0 – April 1993
  - IBIS 1.1 – June 1993
  - IBIS 2.0 – June 1994
  - IBIS 2.1 – Dec. 1995
  - IBIS 3.0 – June 1997
  - IBIS 3.1 – July 1998
  - IBIS 3.2 – Sept. 1999
  - IBIS 4.0 – July 2002
  - IBIS 4.1 – January 2004

- **Average Delivery Times**
  - **24 months** for a major specification revision
  - **12 months** for a minor specification revision
  - **28 months** for a parser from final specification revision

- **Parser Revisions**
  - Ver. 1.0 – July 1995
  - Ver. 2.0 – April 1996
  - Ver. 2.0+ – Aug. 1998
  - Ver. 3.0 – July 2002
  - Ver. 4.0 – Dec. 2003
The Challenge

- We need to “close the gaps” to keep IBIS relevant and useful to the industry
  - PC products on an 18 month cycle (“Moore’s Law”)
  - Increased synergy between transportation, PC and home electronics markets
    - Example: DVD, Bluetooth* in automobiles
    - Cellular telephones, cameras and PCs now integrating
    - Traditional PC makers now entering home electronics
  - New technologies in almost every product generation
  - IBIS is not the only choice for modeling
    - IBIS universality is a “plus” BUT
    - Any perception that IBIS is “behind” is a major negative

- How can we keep IBIS valuable?
  - Support the latest design trends fast and proactively
  - Lower barriers to acceptance of new IBIS revisions
  - Lower barriers for users of IBIS features
Call To Action!

- How to increase acceptance and support new design technologies?
  - Faster release of new specification revisions
    - Address new technologies with new IBIS features
    - Be proactive with features, rather than reactive
  - Faster release of parsers
    - Avoid delaying EDA tools or driving custom parsers
- How to lower barriers for users of IBIS features?
  - Regular Cookbook updates
  - Practical training through web and “E-Roadshow”
- Proposed Development Guidelines
  - Specification-to-parser delay of 6-8 months
    - Add in 4-6 months for EDA product integration
  - Parser-to-cookbook delay of 6 months
    - Cookbook can be available with updated EDA tool releases
  - Specification revision cycle of 18 months or less
    - Major vs. minor to be clarified?
Development Timeline

Not Shown
- July, 2002: IBIS 4.0 approved
- Sept., 2003: ICM 1.0 approved

Spec Activities

IBIS 4.1 Approval
ICM 1.0 Cookbook
ICM 1.0 Approval
IBIS 4.1 Parser
IBIS 4.2 Proposal
IBIS 4.2 Approval
ICM 1.5 Proposal
ICM 1.5 Approval
IBIS 4.2 Proposal

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep
Q1'04 | Q2'04 | Q3'04 | Q4'04 | Q1'05 | Q2'05 | Q3'05

- DAC
- DATE
- DesignCon Summit
- PCB East

Summits

“E-Roadshow”

*Other brands and names are the property of their respective owners*
Futures Subcommittee

- **Proposed “New” Futures Subcommittee**
  - To create, discuss and draft IBIS/ICM updates

- **Tasks for IBIS 4.2 and Following**
  - “Clean up” of language and resolve conflicts
    - Example: [Series Pin Mapping] & [Model Selector] (BIRD87)
  - [External Model] integration issues
    - Example: Acceptable digital states for input ports
  - [External Circuit] usage issues
    - User-definable measurement parameters and delay fixtures

- **Tasks for ICM**
  - Add frequency-dependent RLGC matrix support
  - Resolve known parser assumptions and keyword conflicts
Cookbook & Training

● Proposed Cookbook Subcommittee
  ● Joint action with Quality Subcommittee
  ● Creates, edits and distributes Cookbooks
    ● Practical examples of new keywords
    ● Hints for data extraction and correlation
    ● See S. Peters’ 1997 IBIS 2.1 Cookbook
  ● Suggest following model of HTML specification guides
    ● Describe all keywords
    ● Use “deprecated” for those no longer encouraged
      ● e.g., [TTpower]
  ● Separate ICM and IBIS publications

● E-Roadshow
  ● Summit-level teleconference presentations for global audiences
    ● Foster worldwide interaction, rather than separate IBIS communities
  ● Two presentations (60-90 minutes, plus Q&A)
  ● Schedule to be tailored for specific location
    ● GMT+1 for Europe (ex. 6 AM US Pacific)
    ● GMT+6/9 for Asia (ex. 10 PM US Pacific)
Summary

● A Motto to Remember:
  ● How can we keep IBIS valuable to the industry?
    ● Support the latest design trends *fast and proactively*
    ● Lower barriers to acceptance of new IBIS revisions
    ● Lower barriers for users of IBIS features

● Implementation
  ● Adopt a regular, aggressive schedule
  ● Organize to make changes quickly
    ● Two new subcommittees being formed

● Volunteers are welcome!

Your participation and contributions are critical to IBIS!