

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?*

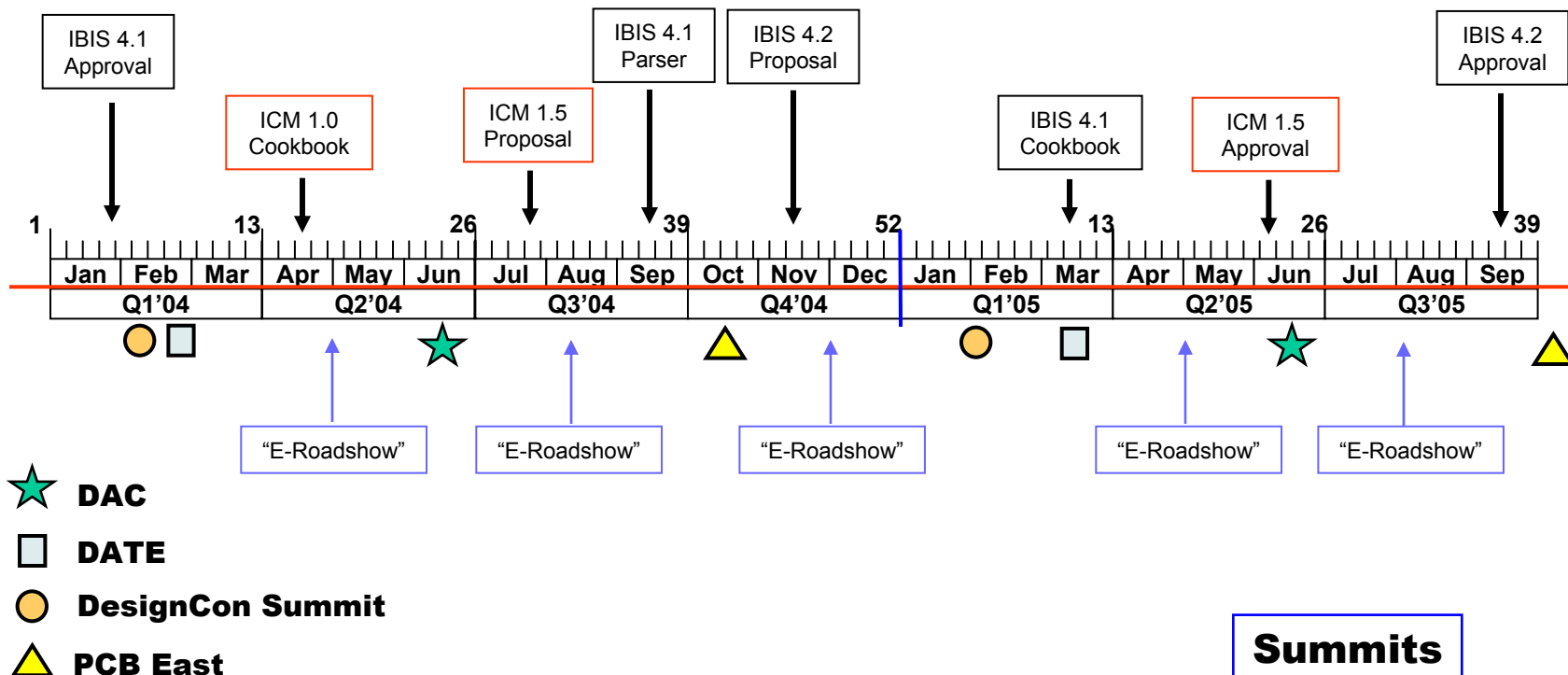
Development Timeline



Not Shown

- **July, 2002: IBIS 4.0 approved**
- **Sept., 2003: ICM 1.0 approved**

Spec Activities



Summits

01/30/04

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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
 - Specification “hooks” between ICM and IBIS
 - ANSI ballot approval as 656-B
- **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!**