

Chair's Status Report



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Chair, IBIS Open Forum

Presented by Randy Wolff,
Micron Technology

European IBIS Summit
at SPI 2015

Berlin, Germany

May 13, 2015

<http://www.eda.org/ibis/>

Agenda

- ❑ An Organizational Note
- ❑ IBIS Features and Updates
- ❑ IBIS Development Data
 - Version Life Cycles and Open BIRDs
- ❑ Planning for the Future
 - Annual Development Schedule Proposal

The IBIS Parent Organization

- ❑ In July 2013, IBIS moved from TechAmerica to SAE International
 - International standards organization
 - Founded 1905 as the Society of Automobile Engineers
- ❑ IBIS is formally part of the SAE Industry Technical Consortia (SAE ITC)
 - Allows entity-based organization of IBIS to continue
 - Billing, balloting and membership communications will be through SAE ITC
 - <http://www.sae-itc.org>

Changes and New Versions

- ❑ IBIS 6.1 is now in editorial review
 - Editorial Task Group semi-weekly
 - Changes focus on Algorithmic Modeling, with package and multi-lingual improvements

- ❑ Major interconnect changes being finalized
 - Interconnect Task Group developing proposal
 - BIRD to address modern packaging, including on-die interconnect
 - Links IBIS-ISS to IBIS, including Touchstone

IBIS 6.1 BIRDs

- ❑ BIRD155.2 New AMI API to Resolve Dependent Model Parameter
- ❑ BIRD167.1 Table Corrections for Tx Jitter Parameters and Ignore_Bits
- ❑ BIRD168.1 Handling of Overclocking Caused by Delay in Waveform Tables
- ❑ BIRD169.1 DLL Dependency Checking
- ❑ BIRD170 Delete Extra Paragraph for Ports under [External Circuit]
- ❑ BIRD171.3 Clarify that Empty Root Name is Not Permitted in AMI Files
- ❑ BIRD172.2 Extend Multilingual Parameter and Converter Parameter Rules
- ❑ BIRD173.3 Package RLC Matrix Diagonals
- ❑ BIRD174.1 Quote Character Clarifications

Parser development is already underway

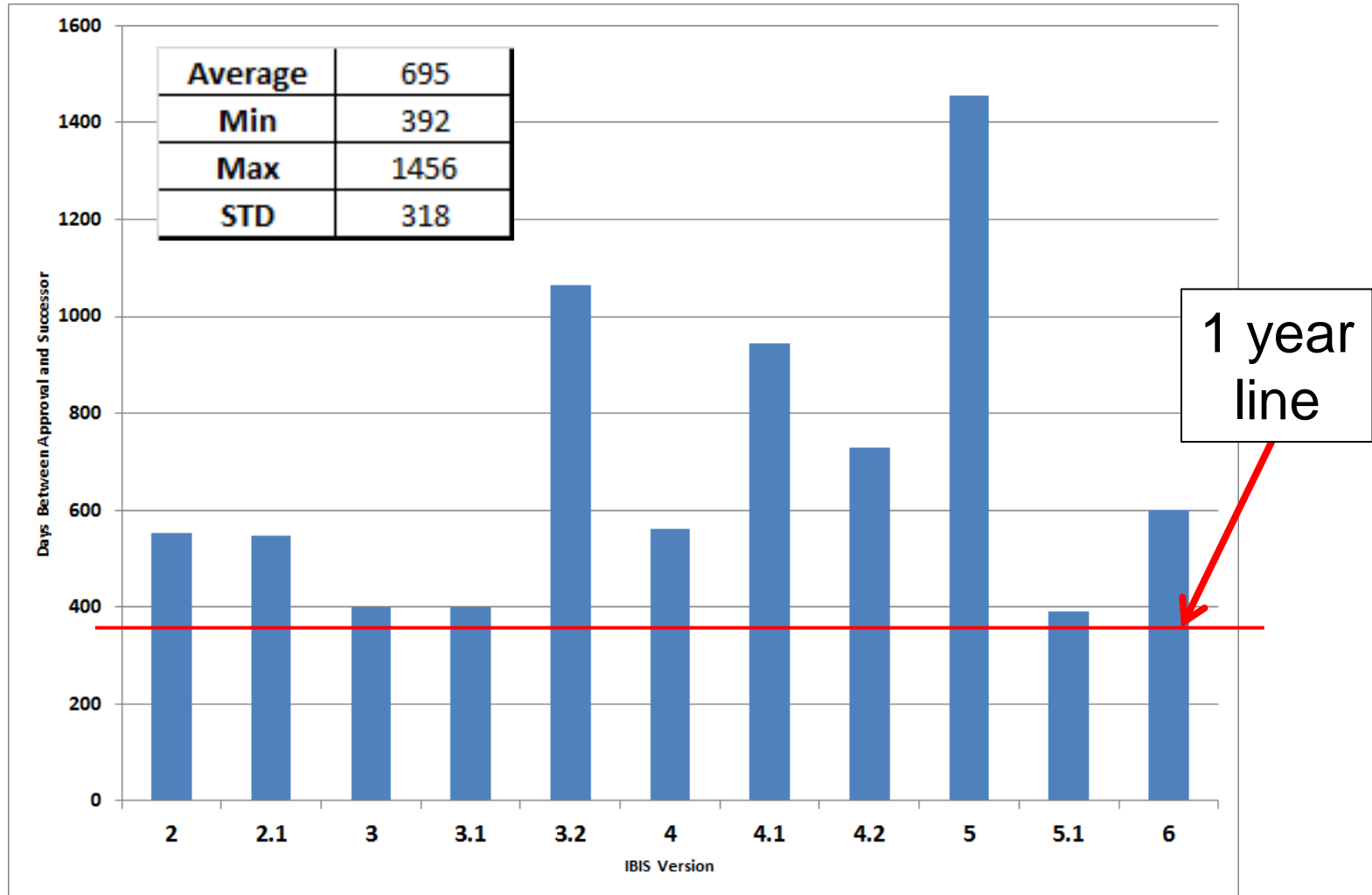
What's Next?

- ❑ IBIS 7.0 will include major feature changes
 - Backchannel equalization support
 - Redriver AMI flow clarifications
 - Integration of expanded package proposal

- ❑ Some BIRDs still in development
 - PAM-4 signaling
 - Direction specification for AMI models
 - Package pin mapping clarifications

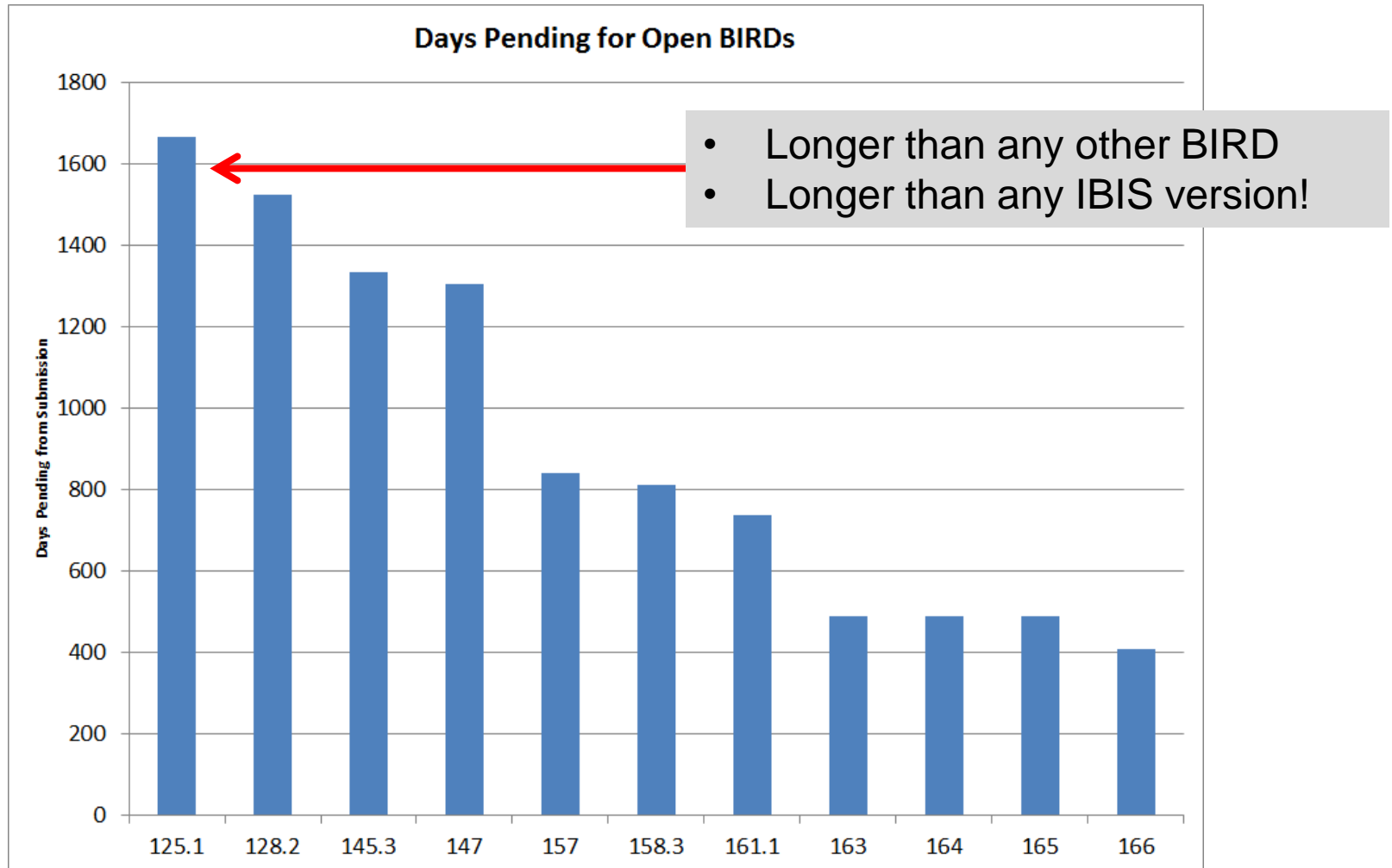
IBIS DEVELOPMENT DATA

How Long Do Versions “Live”?



Pending BIRDs

- 12 BIRDs are open, on packages & advanced AMI



PLANNING THE FUTURE

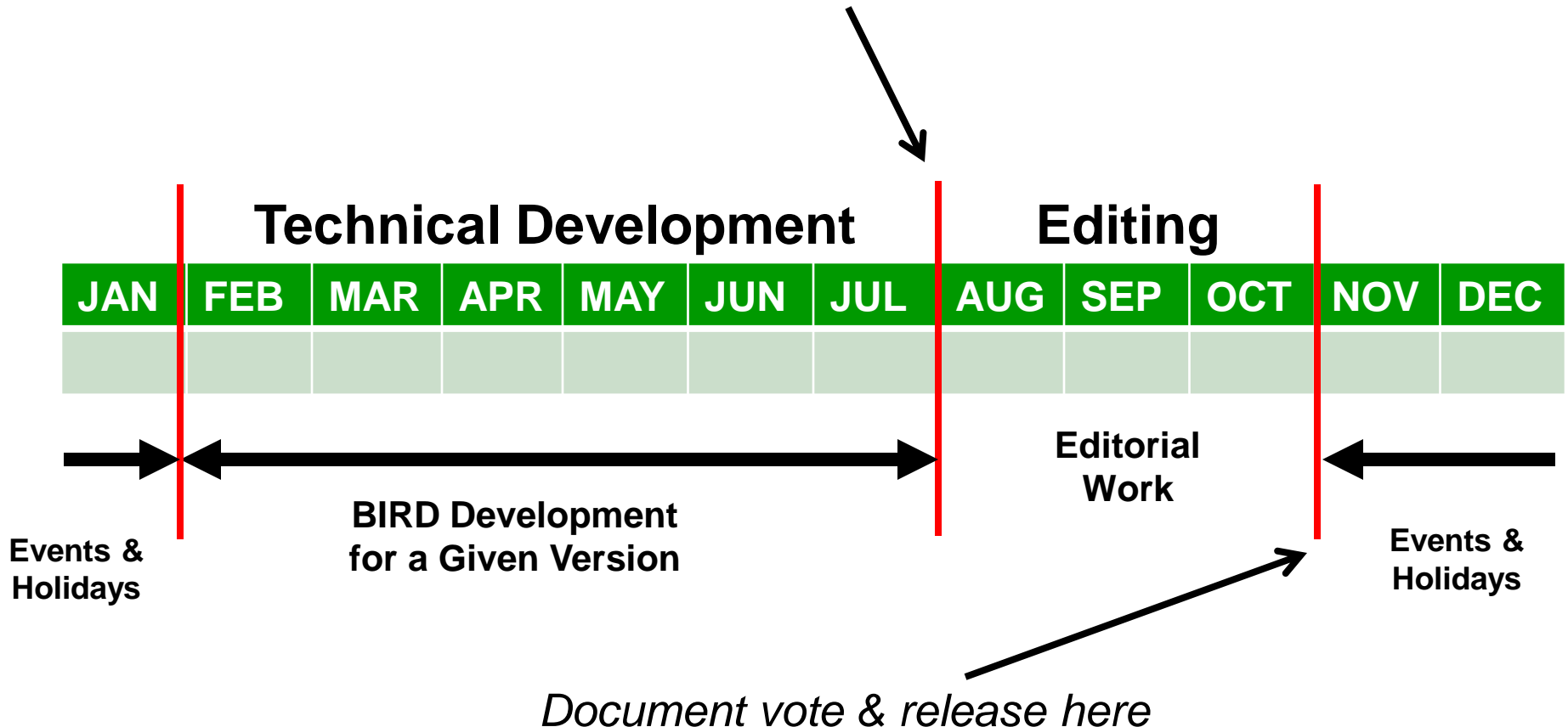
Proposed Release Schedule for IBIS

- ❑ Development would be based on a 9-month cycle
 - Feedback from 2014 DesignCon IBIS Summit

- ❑ Each development cycle will be in three parts
 - Technical Period
 - *February - July*
 - *August 1 - close technical changes*
 - Editorial Period
 - *August - September*
 - *Nov. 1 - close & vote on final document*
 - Quiet Period (Events, Holidays)
 - *November - January*

How Does This Work?

Parser development can start as early as this point



Why This Schedule?

- ❑ Calendar can limit potential interactions
 - End-of-year holidays/shutdowns
 - Fall Asian IBIS Summits and preparation
 - New Year celebrations in Asia
 - DesignCon Summit and preparation
 - July/August vacation schedule in Europe

- ❑ Member companies are likely affected by the same calendar items
 - Peak work periods are Sept. - Oct. and March - May

IBIS Numbering Proposal

- ❑ Specification moves to date codes
 - Year and month of approval (e.g., 2015.11)
 - Multiple releases in the same month unlikely
 - Major/minor release distinction goes away
 - [IBIS Ver] and AMI_Version affected

- ❑ Parser versions track specifications
 - Parser uses specification release number, for features
 - Parser updates use additional numbers
 - *e.g., 2015.11 r01 or similar*
 - Name changes to simply “ibischk”

Implications

- ❑ If implemented immediately...
 - Next major version would not be 7, but 2015.11
 - BIRDs for 2015.11 must be approved on/before Aug. 1, 2015
- ❑ Membership dues in 2016
 - Parser development fees become part of membership dues

Is this schedule realistic for the IBIS community?
Can tools and design cycles absorb annual updates?

Many Thanks to Our Sponsors!

- ❑ ANSYS
- ❑ CST
- ❑ Mentor Graphics
- ❑ Synopsys
- ❑ Zuken

Their technical and logistical support makes IBIS specifications and events possible!

Q/A

Pending BIRDs

ID#	Issue Title	Requester	Submitted	Days Open
125.1	Make IBIS-ISS Available for IBIS Package Modeling	Arpad Muranyi, Mentor Graphics	21-Oct-10	1665
128.2	Allow AMI parameters out to pass AMI parameters in data on calls to AMI GetWave	Walter Katz, SiSoft	11-Mar-11	1524
145.3	Cascading IBIS I/O buffers with [External Circuit]s using the [Model Call] keyword	Taranjit Kukal, Ambrish Varma, Cadence Design Systems, Inc. Arpad Muranyi, Mentor Graphics.	19-Sep-11	1332
147	Back-channel support	Marcus Van Ierssel, Snowbush IP; Kumar Keshavan, Sigrity, Inc.; Ken Willis, Sigrity, Inc.; Walter Katz, SiSoft	18-Oct-11	1303
157	Parameterize [Driver Schedule]	Arpad Muranyi, Mentor Graphics; Romi Mayder, Xilinx	24-Jan-13	839
158.3	AMI Touchstonefile (R) Analog Buffer Models	Walter Katz, Signal Integrity Software, Inc.	20-Feb-13	812
161.1	Supporting Incomplete and Buffer-only [Component] Descriptions	Michael Mirmak, Intel Corp.	8-May-13	735
163	Instantiating and Connecting [External Circuit] Package Models with [Circuit Call]	Arpad Muranyi & John Angulo, Mentor Graphics; Ambrish Varma & Brad Brim, Cadence Design Systems, Inc.	9-Jan-14	489
164	Allowing Package Models to be defined in [External Circuit]	Ambrish Varma & Brad Brim, Cadence Design Systems, Inc.; Arpad Muranyi, Mentor Graphics	9-Jan-14	489
165	Parameter Passing Improvements for [External Circuit]s	Arpad Muranyi & John Angulo, Mentor Graphics; Ambrish Varma & Brad Brim, Cadence Design Systems, Inc.	9-Jan-14	489
166	Resolving problems with Redriver Init Flow	Walter Katz, Signal Integrity Software, Inc. Darshan Shah, F5Networks, Inc.	2-Apr-14	406