IBIS-ATM task group report

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Achievements since DesignCon 2015

- IBIS v6.1 has been released on September 11, 2015 including the following 13 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
  - BIRD175.3 Extending IBIS-AMI for PAM4 Analysis
  - BIRD176 Power Pin Package Modeling
  - BIRD177 [Initial Delay] keyword for Submodels and Driver Schedules
  - BIRD178.3 Specifying Buffer Directionality for AMI

- One BIRD was approved since the release of IBIS v6.1:
  - BIRD 179 New IBIS-AMI Reserved Parameter Special_Param_Names
Pending BIRDs

• 125.1 Make IBIS-ISS Available for IBIS Package Modeling
• 128.2 Allow AMI_parameters_out to pass AMI_parameters_in data on calls to AMI_GetWave
• 145.3 Cascading IBIS I/O buffers with [External Circuit]s using the [Model Call] keyword
• 147 Back-channel support
• 158.3 AMI Touchstonefile (R) Analog Buffer Models
• 161.1 Supporting Incomplete and Buffer-only [Component] Descriptions
• 163 Instantiating and Connecting [External Circuit] Package Models with [Circuit Call]
• 164 Allowing Package Models to be defined in [External Circuit]
• 165 Parameter Passing Improvements for [External Circuit]s
• 166 Resolving problems with Redriver Init Flow
• TBD New Back-channel/Co-optimization
• TBD New interconnect BIRD
• TBD C_comp modeling with IBIS-ISS

Most of these BIRDs are “tabled” because of their dependence on other BIRDs or proposals.
The IBIS Interconnect Task Group is working on a proposal which will most likely supersede the following four BIRDs:

- BIRD 125.1 Make IBIS-ISS Available for Package Modeling
- BIRD 145.3 Cascading IBIS I/O buffers with [External Circuit]s
- BIRD 163 Instantiating and Connecting [External Circuit] Package Models with [Circuit Call]
- BIRD 164 Allowing Package Models to be defined in [External Circuit]

There are two AMI related BIRDs which need to be finished:

- BIRD 158.3 AMI Touchstonefile (R) Analog Buffer Models
- BIRD 166 Resolving problems with Redriver Init Flow

The Backchannel communication and channel optimization BIRDs are still awaiting a resolution:

- BIRD 128 Allow AMI_parameters_out to pass input data to AMI_GetWave
- BIRD 147 Back-channel support

Miscellaneous BIRDs:

- BIRD 161.1 Supporting Incomplete and Buffer-only [Component] Descriptions
- BIRD 165 Parameter Passing Improvements for [External Circuit]s

The “C_comp modeling with IBIS-ISS” proposal is on hold due to a strong overlap with the package and on-die interconnect proposal

Started a major effort to clean up the “GND language” in the specification