# **IBIS-ATM task group report**

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# "Work ahead of us" from the DesignCon 2011 ATM report

#### • Address remaining topics in the AMI Task List spreadsheet

define relationship between "Type" and "Format"

what are the allowed combinations? can AMI\_Init only modify the first column of impulse\_matrix?

- how about cross talk columns?
- ➡●● define how to generate impulse response
  - this may become part of the analog BIRDs work out the syntax details for "Table"

✓ some additional text clarifications

• We are beginning to see the light at the end of the tunnel...

# Achievements

## New IBIS-AMI related BIRDs submitted since DesignCon 2011

- BIRD 112: IBIS-AMI Clock Times Clarification
- **BIRD 114.3: IBIS-AMI Definition Clarifications**
- BIRD 115: Clarifying Min/Tip/Max in IBIS-AMI
- Analog • BIRD 116: Add IBIS-ISS to [External Model] and [External Circuit] [Model]
  - BIRD 117.3: Parameterize D\_to\_A and A\_to\_D Converters
- improvements (• BIRD 118.2: Analog Parameter Assignments

"New

Reserved

**Parameters**"

**BIRDs** 

2011

- BIRD 120.1: IBIS-AMI Flow Correction
- **BIRD 121.1: IBIS-AMI New Reserved Parameters for Data Management** 
  - BIRD 122: IBIS-AMI New Reserved Parameters for Analog Modeling
    - BIRD 123.1: IBIS-AMI New Reserved Parameters for Jitter/Noise
  - BIRD 124: IBIS-AMI New Reserved Parameters for Dependency Tables
  - BIRD 125: Make IBIS-ISS Available for Package Modeling
  - BIRD 126: IBIS-AMI New Reserved Parameter AMI Version
  - **BIRD 127.1: IBIS-AMI Typographical Corrections**
- **BIRD 128:** Allow AMI\_parameters\_out to pass AMI\_parameters\_in data to AMI GetWave
- New since **BIRD 129:** Add "polarity" argument to D\_to\_A Converters
- **BIRD 130: Crosstalk Clarification With Respect to AMI DesignCon** ≺
  - **BIRD 131: IBIS-AMI Repeaters** 
    - **BIRD 132:** Clarification of the Table Format for IBIS-AMI
    - **BIRD 134:** AMI Function Return Value Clarification

# Work in progress (for near term 5.1? adoption)

- Finish corrections to Table 1 3 in the specification (pg. 148-149)
- Finish Format Table and Type relationship clarifications
- Define how channel impulse response is generated
- New ambiguities were discovered which need clarification
  - \*\*AMI\_parameters\_out
    - is it optional or required for AMI\_Init?
    - argument is required in AMI\_Init or AMI\_GetWave function call
    - null pointer or empty string is allowed if model doesn't have anything to return
  - \*\*msg (AMI\_Init argument)
    - where is memory allocated or deallocated?
    - is this available for AMI\_Init only or can AMI\_GetWave use it also ?
    - should AMI\_close always be required?
  - define Boolean in BNF
  - spell out the rules for "Format Corner"
    - where does the control value come from? (typ/min/max/slow/fast settings in EDA tool)

#### • Four more were classified as "new feature" for later consideration

- what should the tool do without clock times?
- "Labels" BIRD draft from Walter
- need to spell out which function returns (Usage Out) parameters
- Model\_Specific parameters should not be used as (Usage Out) or (Usage InOut)

# Work in progress (for later 5.2? adoption)

## • The analog modeling BIRDs are being discussed

- this is done on a "time permitting" bases
- the discussions on the package modeling proposal from Walter "migrated" into the Interconnect Group

# • Data Management and Dependency Table BIRDs

• need more discussion, but didn't have much activity on these yet

#### • Jitter/Noise parameters

• discussions are slowly moving forward