

BIRD ID#: TBD
ISSUE TITLE: IBIS-AMI New Reserved Parameter AMI_Version
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STATEMENT OF THE ISSUE:

It is necessary that any software tool that uses an AMI model know the revision level of the AMI modeling language that the model is designed to support. The current version of the IBIS specification (5.0) includes features in AMI modeling that are either removed or deprecated, and in some cases the syntax of the language has been modified. Since IBIS requires that any IBIS file compliant with a specific release of IBIS must also be compliant with any future release of IBIS, the AMI model itself needs to be able to tell the software tool whether it was written to the initial IBIS Version 5.0 specification or some later version.

This BIRD proposes a new Reserved Parameter called "AMI_Version". This parameter will be required for any AMI model that is written according to a specification that supercedes IBIS Version 5.0.

STATEMENT OF THE RESOLVED SPECIFICATIONS:

On pg. 144 add the following lines before "Init_Returns_Impulse:"

```
|*          AMI_Version:
|*
|*          AMI_Version is of format Value, Type String and Usage Info
|*          that specifies the version of the AMI modeling language.
|*
|*          This parameter is required in the .ami parameter files of
|*          AMI models which are written in compliance with the IBIS
|*          Version 5.1 or later specification(s), but it is not allowed
|*          in the .ami parameter files of AMI models which are written
|*          in compliance with the IBIS Version 5.0 specification. When
|*          required, this parameter must be the first parameter defined
|*          in the Reserved_Parameter branch of the .ami file.
|*
|*          The value of this parameter shall be "5.1" or greater for
|*          AMI models written in compliance with the IBIS Version 5.1 or
|*          later specifications. The absence of AMI_version indicates
|*          that the AMI model was written in compliance with the IBIS
|*          Version 5.0 specification.
|*
|*          The version numbers of .ibs files and AMI models do not have
|*          to match. The EDA tool is expected to execute the AMI model
|*          according to the rules of the specification which corresponds
|*          to its version number.
|*
|*          Example:
|*
|*          (AMI_Version (Value "5.1") (Usage Info)(Type String))
```

|*

ANALYSIS PATH/DATA THAT LED TO SPECIFICATION

The parameter defined in this BIRD will permit AMI model developers to programmatically indicate the version of AMI modeling that is supported by this model. It is legal for .ibs files and .ami files to have different version numbers provided that:

- 1) A .ibs file must be 5.0 or above to support the [Algorithmic Model] keyword
- 2) The version number in the .ami file must be "5.1" or greater, or omitted, which implies that the version is 5.0

The ibischk5 parser with the -ami flag will check the .ibs and the .ami file feature set at their designated version number (or in the case of .ibs, at the final major version number level used for official standardization). The EDA tool is responsible for processing each of the files at their specified version number level.

ANY OTHER BACKGROUND INFORMATION:
