**BUFFER ISSUE RESOLUTION DOCUMENT (BIRD)**

**BIRD NUMBER: 154.1**

**ISSUE TITLE:** Using IBIS-AMI Leaf List\_Tip in List Parameters

**REQUESTOR:**  Walter Katz, Signal Integrity Software, Inc.

**DATE SUBMITTED:** November 16, 2012

**DATE REVISED:** May 24, 2013

**DATE ACCEPTED BY IBIS OPEN FORUM: June 7, 2013**

**ANALYSIS PATH/DATA THAT LED TO SPECIFICATION:**

Values in a List often are numbers that do not help the User identify the meaning of each List value. The EDA Tool may use the value of each List\_Tip field as a Tool Tip for each value in the List.

An example of using List\_Tip

(Process (Usage In) (Type Integer)

(List –2 –1 0 1 2)(Default 0)

(List\_Tip "X Slow" "Slow" "Typ" "Fast" "X Fast")

(Description "Process corner used in the algorithmic model")

)

**ANY OTHER BACKGROUND INFORMATION:**

Approved during the IBIS Open Forum teleconference on June 7, 2013.

Modify the Parameter Rules Summary on Pages 174-175 as shown:

PARAMETER RULES SUMMARY

The features of a model described in a parameter definition file are called AMI parameters, and are grouped into the branches Reserved Parameters and Model\_Specific Parameters. AMI parameters are themselves branches, but may only contain leaves and not other branches.

Branches may define AMI parameters and/or other branches. A branch which contains one or more sub-branches may only contain the (Description <string>) leaf in addition to the sub-branches. Each sub-branch of a branch must have a unique name.

All AMI parameter branches shall contain leaf entries formatted as follows:

(parameter\_name

(Usage <usage>)

(Type <data\_type>)

({Format} <data\_format> <data>)

(List\_Tip) | only with ({Format} List) as discussed below

(Default <value>)

(Description <string>))

AMI parameter branches shall contain the leaves Type, Usage, and any of the following leaves:

Default

<data\_format> or Format <data\_format>

List\_Tip | only with List as discussed below

All leaves of the parameter definition file shall begin with one of the following reserved words:

Type

Usage

Description

Default

<data\_format> or Format <data\_format>

List\_Tip | only with List as discussed below

Replace this following text

**List** <default value> <value> <value> <value> ... <value>

This defines a discrete set of values from which the user may select one value

With

**List** <default value> <value> <value> <value> ... <value>

This defines a discrete set of values from which the user may select one value.

List\_Tip <”default\_entry”><”entry”><”entry”><”entry”>…<”entry”>

This is an optional leaf of a parameter with Format **List** and it is followed by a String entry for each entry in the **List**. The number of entries in List\_Tip must be the same as the number of entries in **List**. The nth entry in List\_Tip shall correspond to the nth entry in **List**. Quoted null entries are not permitted. All entries in List\_Tip shall be unique, except that if two entries in **List** are the same, then the corresponding List\_Tip entries must also be the same. List is required for List\_Tip to be entered, and the word Format before List\_Tip as in (Format List\_Tip ,,,) is not allowed.

Example:

(Strength (Usage In) (Type Integer)(Description "Strength of Driver")

(List 0 1 2 3 4)(Default 2)

(List\_Tip "Extra Weak" "Weak" "Nominal" "Strong" "Extra Strong"))