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Buffer Issue Resolution Document  (BIRD)
BIRD ID#:        {TBD}
ISSUE TITLE:    Clarification of the Table Format for IBIS AMI.
REQUESTOR:       Ambrish Varma, Cadence Design Systems, Inc.
DATE SUBMITTED: March 22,2011
DATE REVISED:
DATE ACCEPTED BY IBIS OPEN FORUM:

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STATEMENT OF THE ISSUE:

The definition of Format Table is unclear when there is only 1 row in the
Table in the 5.0 version of the IBIS spec.

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STATEMENT OF THE RESOLVED SPECIFICATIONS:

On pg. 140 replace the following lines:


|      Table     The parameter name "Table" names a branch of the parameter
|                tree rather than a single leaf.  One of the leaves of this
|                branch can be named "Labels" and, if provided, is to be
|                assigned a string value containing a list of column names.

with these lines:

|      Table     The parameter name "Table" names a branch of the parameter
|*               tree rather than a single leaf.  For Usage In, if the table
|*               has more than one row, the first column will be considered
|*               to be the Parameter Name for that row.  If the table has only
|*               1 row, parameter name for that row is not expected and the
|*               entire row will be passed as value to the parent parameter.
|*               One of the leaves of a Table can be named "Labels" and,
|*               if provided, is to be assigned a string value containing
|*               a list of column names.

A single-row table example:
      (fwd (Usage In) (Type Float)
          (Table ( RowName -0.169324 1.40308 0.33024 ))
      )

In this case, the AMI model will expect a paramter string:
( fwd ( RowName -0.169324 1.40308 0.33024 ))


A multi-row table example:
      (fwd (Usage In) (Type Float)
          (Table ( myRow   -0.169324  1.40308   0.33024 )
                 ( yourRow -0.738358 -0.293473 -0.06912 ))
      )

In this case, the AMI model will expect a paramter string:
( fwd ( myRow -0.169324 1.40308 0.33024 )( yourRow -0.738358 -0.293473 -0.06912 ))


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ANALYSIS PATH/DATA THAT LED TO SPECIFICATION:

The existing IBIS specification lacks clear definition the Format 'Table'
and how it should be treated when used as a format for a Usage 'In'
parameter. Because of prior use, and possible future use, distinction has
to be made between a single-row table and a multi-row table. A single row
table does not need a parameter name for the row and the parent parameter
is used in the string that gets passed back to the model. However, if
there are multiple rows in the table, the first column of the row is
considered to be a parameter name for that row.

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ANY OTHER BACKGROUND INFORMATION:

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