**BUFFER ISSUE RESOLUTION DOCUMENT (BIRD)**

**BIRD NUMBER:**  192

**ISSUE TITLE:** Clarification of List Default Rules

**REQUESTOR:**  Michael Mirmak, Intel Corp.

**DATE SUBMITTED:** August 22, 2017

**DATE REVISED:**

**DATE ACCEPTED:**

**DEFINITION OF THE ISSUE:**

The rules for the AMI parameter Format List are ambiguous as to whether the initial value of the List must be duplicated vs. other values given. In addition, while Default is optional for Format List, the order of precedence between the initial List value and Default is also ambiguous. This increases the risk that different tools will interpret the same AMI information differently.

**SOLUTION REQUIREMENTS:**

The IBIS specification must meet these requirements:

Table 1: Solution Requirements

|  |  |
| --- | --- |
| Requirement | Notes |
| 1. Clarify whether Format List uses a duplicated or unique initial value |  |
| 1. Clarify whether Default does or does not override the first value for Format List |  |

**SUMMARY OF PROPOSED CHANGES:**

For review purposes, the proposed changes are summarized as follows:

Table 2: IBIS Keywords, Subparameters, AMI Reserved\_Parameters, and AMI functions Affected

|  |  |  |
| --- | --- | --- |
| Specification Item | New/Modified/Other | Notes |
| Definition of Format List | Modified | The definition of Format List is modified to clarify the relationship of the first given value in the list and the remaining values. The definition is also clarified to specific the relationship to Default. |

**PROPOSED CHANGES:**

**In Section 10.3, page 196, of IBIS 6.1, replace the text below:**

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. The first given value, <default value>, may optionally be a duplicate of one of the other values in the List (for example, “List 2 0 1 2 3 4” specifies a default of “2” for the list sequence “0 1 2 3 4”). If the <default value> is a duplicate of a value elsewhere in the List, the List shall not be assumed to contain the default value twice. If the optional selection Default is used with List, the argument to Default must be an explicit member of the List and will override the use of the first List value as <default value> (for example, (List 0 1 2 3 4) (Default 2) means that the default value for the List is 2, not 0).

**BACKGROUND INFORMATION/HISTORY:**

This changes in this BIRD are constructed in such a way as to leave the existing examples and other parameters (e.g., List\_Tip) completely unaffected. IBISCHK parser changes should be limited to checking whether the argument to Default is already an explicit member of the List.