**BUFFER ISSUE RESOLUTION DOCUMENT (BIRD)**

**BIRD NUMBER:** 216

**ISSUE TITLE:** Alphanumeric Pin Names

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**DATE SUBMITTED:** January 18, 2022

**DATE REVISED:**

**DATE ACCEPTED:** March 11, 2022

**DEFINITION OF THE ISSUE:**

While the IBIS v7.1 specification does not state that pin names under the [Pin] keyword may only contain alphanumeric characters, other pin name related keywords define pin names as alphanumeric. In addition to this inconsistency, the statement on pg. 376:

“The first column must contain the alphanumeric external pin\_names of the designator.”

conflicts with the description of the [Pin] keyword, since “designator” in that context may refer to IBIS Components and external pin\_names in IBIS Components are listed under the [Pin] keyword (which currently does not define pin names as alphanumeric).

In addition, the IBIS specification does not provide a definition for what it considers alphanumeric characters. Since several different character sets may be considered alphanumeric in the industry, the IBIS specification should include a definition for it to eliminate any ambiguity and prevent the possibility for confusion.

**SUMMARY OF PROPOSED CHANGES:**

Add a definition for alphanumeric characters to chapter 3 and define pin names under the [Pin] keyword to be alphanumeric.

**PROPOSED CHANGES:**

On pg. 20, add the following (as item 16):

16. The term “alphanumeric” in this document refers to words composed of the following characters:

 a b c d e f g h i j k l m n o p q r s t u v w x y z

 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

 0 1 2 3 4 5 6 7 8 9

On pg. 34, replace the following sentence:

“The first column shall contain the pin name, which shall not be repeated within the same [Pin] keyword for a [Component] (the entries in the first column are also referred to as pin\_names elsewhere in this document).”

With:

“The first column shall contain the alphanumeric pin name, which shall not be repeated within the same [Pin] keyword for a [Component] (the entries in the first column are also referred to as pin\_names elsewhere in this document).”

On pg. 55, replace the following sentence:

“The fourth column, function\_table\_group, contains an alphanumeric designator string to associate those sets of Series\_switch pins that are switched together.”

With:

“The fourth column, function\_table\_group, contains a name to associate those sets of Series\_switch pins that are switched together.”

**BACKGROUND INFORMATION/HISTORY:**

The Advanced Technology Modeling Task Group discussed this topic on January 5, 2022 and agreed that a BIRD should be written to define alphanumeric and to require pin names to be alphanumeric under the [Pin] keyword also.