Standards Change Request

Allow REPETITIONS=1 in CONTAINER objects   **SCR3-1111.v1**

Provenance:

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Problem:

The REPETITIONS keyword specifies the number of repetitions of a container within a table. The current minimum value is 2. There is a need to allow REPETITIONS=1 for cases where the number of repetitions varies from one product to another, and occasionally a product has only one repetition.

This case has arisen for the Phoenix MECA instrument, which can include measurements from a variable number of sensors in a single product. Sensor measurements are stored as a set of columns in a table, labeled as a container. In cases where an observation returns data from only one sensor, the REPETITIONS keyword needs to be set to 1. But currently the minimum value is 2.

Current Urgency:

This issue should be resolved by the time of Phoenix MECA end-to-end tests, which are not scheduled yet but should occur before launch on August 9, 2007.

Proposed Solution:

Change the Data Dictionary definition of REPETITIONS to allow a minimum value of 1.

Impact Assessment:

There should be no impact on existing products labeled with the CONTAINER object.

The Data Dictionary will have to be revised.

No changes are needed to the Standards Reference.

There should be little to no impact on software, as far as I can tell.

Additional Information:

None.

Requested Changes:

Below is a revised definition for REPETITIONS.

```
OBJECT = ELEMENT_DEFINITION
  NAME = REPETITIONS
  STATUS_TYPE = APPROVED
  GENERAL_DATA_TYPE = INTEGER
  UNIT_ID = NONE
  STANDARD_VALUE_TYPE = RANGE
  MINIMUM = 1
  DESCRIPTION = "
    The repetitions data element within a data object such as
    a container, indicates the number of times that data object
    recurs.  See also:  items.
    Note:  In the PDS, the data element ITEMS is used for
    multiple occurrences of a single object, such as a column.
    REPETITIONS is used for multiple occurrences of a repeating
    group of objects, such as a container.  For fuller
    explanation of the use of these data elements, please refer
    to the PDS Standards Reference."
END_OBJECT = ELEMENT_DEFINITION
END
```