Standards Change Request

PSDD Filename Length Clean-Up   **SCR3-1145.v3**

Provenance:

Date: 2009-07-02
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Date: 2009-02-11
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Title: PSDD Filename Length Clean-Up

Date: 2008-10-15
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Working Group: D. Simpson (lead), M. Gordon, R. Joyner, E. Rye, S. Slavney
Title: PSDD Filename Length Clean-Up

History: 2008-10-07   SCR 3-1144 was passed by PDS Management Council
                 2008-10-08   Need for changes in *PSDD*, which had not been identified in the
                              SCR, were recognized and the new SCR was drafted.

Problem:

SCR 3-1144 incorrectly stated that no changes would be needed in the *Planetary Science Data Dictionary*. Definitions of FILE_NAME and UNCOMPRESSED_FILE_NAME both state that the maximum basename length is 27 characters. In addition, the FILE_NAME MAXIMUM_LENGTH is given as 120 characters, which means validation tools based on *PSDD* do not report errors for excessively long values.

Current Urgency:

SCR 3-1144 has just been passed, allowing 36.3 file names. This clean-up SCR should be implemented in parallel to minimize inconsistencies in documentation and confusion among data providers and users. (This should be accelerated so that implementation can be done in parallel with implementation of SCR 3-1144.)

Proposed Solution:

Update the *PSDD* FILE_NAME and UNCOMPRESSED_FILE_NAME entries to reflect the change in maximum length. Reduce the maximum_length of FILE_NAME (from 120 to 40) to be consistent with the PDS limit. Modify derivative documents and files (*e.g.*, pdsdd.full and the on-line Data Dictionary) accordingly.

Update the formation rule for the keyword DATA_SET_LOCAL_ID to remove the reference to following the filename formation rule. Note: The formation rule appears in the online data dictionary but does not appear in the pdsdd.full file. In pdsdd.full formation rules are specified as part of the element descriptions. So the requested change is shown below by including the modified formation rule in the element description of DATA_SET_LOCAL_ID in pdsdd.full. This modified formation rule should be propagated to the online data dictionary.

Impact Assessment:

PDS Standards Reference: No impact
Archive Preparation Guide: No impact
Proposer's Archive Guide: No impact
Planetary Science Data Dictionary: Changes as described
PDS Tools: SCR 3-1144 highlighted the need to verify the length of the actual file name as well as the length of the value of the FILE_NAME keyword. Vtool does not check the length of the actual file name, nor does any other PDS tool currently in use. PDS software developers should be asked to update Vtool to check that the name of the file described by a PDS label does not exceed the maximum length specified in the definition of FILE_NAME.
PDS web site, product servers, profile servers: No impact
external agencies (*e.g.*, NSSDC, ESA, IPDA): No impact
external interfaces (*e.g.*, NSSDC, ADS): No impact
compliance/compatibility with ODL and ISO standards: No impact

Preliminary impact assessments by Simpson.

Additional Information:

None

Requested Changes:

The following changes need to be made to the Planetary Science Data Dictionary. Changes are shown in red.

```
PDS_VERSION_ID                  = PDS3
LABEL_REVISION_NOTE             = "2009-07-02 RS:RAS Reduced maximum length
to 40 characters; updated basename length in description for consistency;
added formation rule."

OBJECT                          = ELEMENT_DEFINITION
  ELEMENT_NAME                  = "file_name"
  BL_NAME                       = "filename"
  DESCRIPTION                   = "

The file_name element provides the location independent name of a file.
It excludes node or volume location, directory path names, and version
specification.  To promote portability across multiple platforms, PDS
```

requires the file_name to be limited to a 36-character basename, a full
stop (. period), and a 3-character extension. Valid characters include
capital letters A – Z, numerals 0 - 9, and the underscore character (_). See
chapter 10 of the *PDS Standards Reference* for more details on naming files
included in PDS archives."

```
  GENERAL_DATA_TYPE              = "CHARACTER"
  MAXIMUM                        = "N/A"
  MINIMUM                        = "N/A"
  MAXIMUM_LENGTH                 = "40"
  MINIMUM_LENGTH                 = "N/A"
  STANDARD_VALUE_TYPE            = "FORMATION"
  STANDARD_VALUE_SET_DESC        = ""
  KEYWORD_DEFAULT_VALUE          = ""
  UNIT_ID                        = "none"
  SOURCE_NAME                    = ""
  FORMATION_RULE_DESC            = "The file_name is limited to a 36-
character basename, a full stop (. period), and a 3-character extension."
  SYSTEM_CLASSIFICATION_ID       = "COMMON"
  GENERAL_CLASSIFICATION_TYPE    = "SOFTWARE"
  CHANGE_DATE                    = "2009-07-02"
  STATUS_TYPE                    = "APPROVED"
  STANDARD_VALUE_OUTPUT_FLAG     = "N"
  TEXT_FLAG                      = "N"
  TERSE_NAME                     = "filename"
  SQL_FORMAT                     = "CHAR(40)"
  BL_SQL_FORMAT                  = "char(40)"
  DISPLAY_FORMAT                 = "JUSTLEFT"
  AVAILABLE_VALUE_TYPE           = ""
END_OBJECT                       = ELEMENT_DEFINITION
END


PDS_VERSION_ID                   = PDS3
LABEL_REVISION_NOTE              = "2004-11-08, SS/GEO, submitted as a
standards/dd cleanup;
2005-06-15, SLA/EN, template edited and submitted,
minimum_length changed to 3 (x.x) fn format.
2009-07-02 RS:RAS Updated max length, form. rule and desc. for 36.3 filename
length."

OBJECT                           = ELEMENT_DEFINITION
  ELEMENT_NAME                   = "uncompressed_file_name"
  BL_NAME                        = "ufilename"
  DESCRIPTION                    = "
```

The UNCOMPRESSED_FILE_NAME element provides the location independent name
of a file. It excludes node or volume location, directory path names, and
version specification. To promote portability across multiple platforms,
PDS requires the file_name to be limited to a 36-character basename, a
full stop (. period), and a 3-character extension. Valid characters
include capital letters A – Z, numerals 0 - 9, and the underscore character
(_)."

```
  GENERAL_DATA_TYPE              = "CHARACTER"
  MAXIMUM                        = "N/A"
  MINIMUM                        = "N/A"
  MAXIMUM_LENGTH                 = "40"
  MINIMUM_LENGTH                 = "3"
```

```
     STANDARD_VALUE_TYPE                = "FORMATION"
     STANDARD_VALUE_SET_DESC            = "N/A"
     KEYWORD_DEFAULT_VALUE              = "N/A"
     UNIT_ID                            = "none"
     SOURCE_NAME                        = "N/A"
     FORMATION_RULE_DESC                = " The uncompressed_file_name is limited
to a 36-character basename, a full stop (. period), and a 3-character
extension."
     SYSTEM_CLASSIFICATION_ID           = "COMMON"
     GENERAL_CLASSIFICATION_TYPE        = "SOFTWARE"
     CHANGE_DATE                        = "2009-07-02"
     STATUS_TYPE                        = "APPROVED"
     STANDARD_VALUE_OUTPUT_FLAG         = "N"
     TEXT_FLAG                          = "N"
     TERSE_NAME                         = "ufilename"
     SQL_FORMAT                         = "CHAR(40)"
     BL_SQL_FORMAT                      = "char(40)"
     DISPLAY_FORMAT                     = "JUSTLEFT"
     AVAILABLE_VALUE_TYPE               = "N"
END_OBJECT                             = ELEMENT_DEFINITION
END

OBJECT                                 = ELEMENT_DEFINITION
   NAME                                = DATA_SET_LOCAL_ID
   STATUS_TYPE                         = APPROVED
   GENERAL_DATA_TYPE                   = CHARACTER
   UNIT_ID                             = NONE
   STANDARD_VALUE_TYPE                 = SUGGESTED
   MAXIMUM_LENGTH                      = 40
   DESCRIPTION                         = "
       The DATA_SET_LOCAL_ID element provides a short (of order 3
       characters) acronym used as the local ID of a data set
       (Example value: IGLC). It may also appear as the first
       element of file names from a particular DATA_SET (Example
       value: IGLCINDX.LBL). Formation rule: The DATA_SET_LOCAL_ID
       must be a string of no more than the maximum valid length
       for a filename, and must consist of alphanumeric characters,
       hyphens and underscores (A-Z,0-9,-,_). "
END_OBJECT = ELEMENT_DEFINITION
END
```