STANDARDS CHANGE REQUEST

Space Agency Institution Identifier   **SCR 3-1065**
R. Joyner   **Jan. 5, 2006**

Provenance:
Date: 2006-01-05, revision 1
Working Group: R. Joyner (lead)
Title: Space Agency Institution Identifier (SCR3-1065.v1)

Background:
In the past, planetary exploration was the domain of NASA and the Russian Space
Agency (RKA). More recently, they have been joined by the European Space Agency
(ESA) and it is obvious that today more space agencies are capable of and are
demonstrating their ability and commitment to be involved in space exploration (e.g.
China (CNSA), Japan (JAXA), and India (ISRO)). More and more, PDS is participating
in multi-national missions, which means the PDS will be distributing planetary science
data from agencies other than NASA (e.g., ESA's High-Resolution Stereo Camera
(HRSC) flown on the Mars Express (MEX) spacecraft).

Currently within the PDS, there is no mechanism to specifically identify which space
agency has responsibility over a data set. Users accessing the PDS web site should be
able to ascertain which space agency has responsibility over a data set.

Current Urgency:
A team of engineers and scientists from the NASA Planetary Data System (PDS) and the
European Space Agency (ESA) Planetary Science Archive (PSA) is in the process of
considering how to implement an agency independent data query and retrieval standard.
As a first step towards this goal, a white paper has been written which proposes the
adoption of a standard protocol to demonstrate interoperability between PDS and PSA to
provide reciprocal access to their data.

Also, the Geosciences (GEO) node is in the process of making the HRSC data available
electronically via the PDS data distribution system. GEO has expressed some concern
that ESA might feel slighted by PDS not acknowledging that the HRSC data is ESA data
(and not NASA data).

Recommendations
This SCR proposes a set of changes that will allow users accessing the PDS web site to
ascertain which space agency and organization has responsibility over data sets (e.g.,
NASA_PDS, ESA_PSA, etc).

Impact Statement:

1. **Changes to the PDS Data Dictionary**

   The following are the changes to the PDS Data Dictionary (PSDD) required to support the recommended change:

   (a) Add a new column, agencyid, to the dsinfo table of the PSDD as varchar(25).

   Notes:

   (1) The DATA_SET_HOUSEKEEPING object will be used as the vehicle to ingest data into the agencyid column of the dsinfo table of the PSDD.

   ```
   PDS_VERSION_ID                  = PDS3
   LABEL_REVISION_NOTE             = "
         20051018, RSJ/EN, added AGENCY_ID"

   OBJECT                          = DATA_SET_HOUSEKEEPING
     DATA_SET_ID                   =
     CURATING_NODE_ID              =
     AGENCY_ID                     =

     OBJECT                        = RESOURCE_INFORMATION
       RESOURCE_ID                 =
       RESOURCE_NAME               =
       RESOURCE_CLASS              =
       RESOURCE_STATUS             =
       RESOURCE_LINK               =
       RESOURCE_DESC               =
     END_OBJECT                    = RESOURCE_INFORMATION

   END_OBJECT                      = DATA_SET_HOUSEKEEPING
   END
   ```

   (2) A new element definition will need to be loaded into the PSDD. Validation tools that use the data dictionary during the validation process (i.e. lvtool) will automatically recognize the new keyword once it is ingested into the data dictionary.

   ```
   OBJECT                          = ELEMENT_DEFINITION
     NAME                          = AGENCY_ID
     STATUS_TYPE                   = PENDING
     STATUS_NOTE                   = "V1.0 2005-10-26 RSJ
         Proposal based on current data provider needs."
     DESCRIPTION                   = "The AGENCY_ID element
   identifies the space agency and organization having
   responsibility for the data set (e.g., NASA_PDS or
   ESA_PSA)."
   ```

```
         SOURCE_NAME                    = "PDS EN/R.Joyner"
         GENERAL_DATA_TYPE              = IDENTIFIER
         UNIT                           = "N/A"
         VALID_MAXIMUM                  = "N/A"
         VALID_MINIMUM                  = "N/A"
         MAXIMUM_LENGTH                 = 25
         MINIMUM_LENGTH                 = "N/A"
         STANDARD_VALUE_SET             = {"ESA_PSA", "NASA_PDS"}
         STANDARD_VALUE_TYPE            = "DYNAMIC"
         DEFAULT                        = "NASA_PDS"
         FORMATION_RULE_DESC            = "N/A"
         SYSTEM_CLASSIFICATION_ID       = "PDS/CN"
         GENERAL_CLASSIFICATION_TYPE    = SYSTEM
         OBJECT                         = ALIAS
           ALIAS_NAME                   = "N/A"
           OBJECT_NAME                  = "N/A"
           USAGE_NOTE                   = "N/A"
         END_OBJECT                     = ALIAS
         OBJECT                         = LOCAL_ENVIRONMENT
           SQL_FORMAT                   = CHAR(25)
           TERSE_NAME                   = "agencyid"
         END_OBJECT                     = LOCAL_ENVIRONMENT
       END_OBJECT                       = ELEMENT_DEFINITION
```

2. Changes to the Standards Reference

-NONE-

3. Changes to the PDS Tool Suite

-NONE-

4. Changes to the Ingestion tools

(a) The online Cold Fusion ingestion tool will have to be changed to process the new DATA_SET_HOUSEKEEPING object, as redefined above.

PDS Template Ingestion Web Application

Action	Status
Update Path	/data/www/pds/htdocs
Update Ext	*.CAT
Get Dir Stats	0
Process Files	waiting
Delete Files	waiting
Generate ALLREFS	waiting
Update Results File	RESULTS.OUT
LogOff Ingest Tool	
File Path & Extension:	/data/www/pds/htdocs/cf/onlinetemplate/Joyner/*.CAT
Results File:	/data/www/pds/htdocs/cf/onlinetemplate/Joyner/RESULTS.OUT

5. **Changes to the online Data Search tools**

  (a) The Data Set Advanced Search, aka DS_VIEW, online search tool will have
       to be modified to allow users to filter on the AGENCY_ID value.

  Note: On the redesigned web page, a drop down control should be added
       where one of the AGENCY_ID values can be selected for the purpose of
       filtering the underlying data. On the redesigned web page,
       AGENCY_ID drop down control should be displayed to the right of the
       "Missions" control.

       This feature will only be available on the Data Set Advanced Search.

(b) The Data Set Quick Search, aka DS_VIEW, online search tool will have to be modified to display the AGENCY_ID value as one of the columns of information.

Note: On the redesigned web page, AGENCY_ID should be displayed as the 2nd column of information (i.e., following Data Set and before Instrument Host).

6. Changes to the Data Set Information web page

(a) The Data Set Information web page will have to be modified to display the AGENCY_ID value as one of the rows of information.

Note: On the redesigned web page, AGENCY_ID should be displayed as the 11th row of information (i.e., following STOP_TIME and before MISSION_NAME).

Data Set Information

DATA_SET_NAME	ODYSSEY MARS ALTITUDE DATA RECORDS V1.0
DATA_SET_ID	ODY-M-ACCEL-5-ALTITUDE-V1.0
NSSDC_DATA_SET_ID	UNK
DATA_SET_TERSE_DESCRIPTION	2001 Mars Odyssey Accelerometer Altitude Derived Data Records
DATASET_DESCRIPTION	ODY-M-ACCEL-5-ALTITUDE-V1.0
DATA_SET_RELEASE_DATE	TBD
RESOURCE_LINK	http://starbrite.jpl.nasa.gov/db/servlet/DbSearchServlet?DATA_SET_ID=ODY-M-ACCEL-5-ALTITUDE-V1.0
DATA_OBJECT_TYPE	TABLE
START_TIME	TBD
STOP_TIME	TBD
MISSION_NAME	2001 MARS ODYSSEY
MISSION_START_DATE	2001-01-04
MISSION_STOP_DATE	UNK
TARGET_NAME	MARS
TARGET_TYPE	PLANET
INSTRUMENT_HOST_ID	ODY
INSTRUMENT_NAME	ACCELEROMETER
INSTRUMENT_ID	ACCEL
INSTRUMENT_TYPE	ACCELEROMETER
NODE_NAME	PLANETARY ATMOSPHERES
ARCHIVE_STATUS	PRE PEER REVIEW
CONFIDENCE_LEVEL_NOTE	TBD
CITATION_DESCRIPTION	Citation TBD
ABSTRACT_TEXT	ODY-M-ACCEL-5-ALTITUDE-V1.0
FULL_NAME	LYLE F. HUBER
TELEPHONE_NUMBER	505-646-1862
RESOURCES	• CN Volumes Offline • Mars Odyssey Data Archives • Mars Odyssey Home Page

7. **Impact to PDS User Community**

   a. **Operational Impacts**

      (1) Notify users of the changes to the above tools and how the change affects the data dictionary, the ingestion of the AGENCY_ID, and the display of the AGENCY_ID on the online tools.

8. **Open Issues**

   -NONE-

Level of Effort / Schedule

All of the above impacts are against the EN. The EN feels that the level of effort to implement the above changes is very small – on the order of 40 hours over a couple of weeks. It should be possible to implement the above changes within two months from the date when the SCR is approved.