Add Std Vals for MGN Bistatic Radar and Cassini Orbiter
SCR3-1139.v2

## Provenance:

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Date: 2008-09-15
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Working Group: Richard Chen (lead), John Diehl, Elizabeth Rye, Dick Simpson
Date: 2008-09-11
Author(s): Richard Chen and Elizabeth Rye (EN)
Working Group: Richard Chen (lead), John Diehl, Elizabeth Rye, Dick Simpson
Title: Add Std Vals for MGN Bistatic Radar and Cassini Orbiter (SCR3-1139.v1)
Problem:

Ongoing archiving of the Magellan Bistatic Radar and Cassini Orbiter ISS data requires the addition of several new standard values to existing keywords. The three affected keywords all have a standard value type of DYNAMIC which requires PDS approval for changes. This SCR proposes changing the standard value type of one of the keywords to SUGGESTED.

Current Urgency:
High, due to imminent close of MGN Bistatic Radar peer review.
Proposed Solution:
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The addition of the following standard values to the specified
keywords is requested:
FACILITY NAME = "VEX RS STANFORD UNIVERSITY ELEMENT"
FACILITY_NAME = "CASSINI IMAGING CENTRAL LABORATORY FOR OPERATIONS"
INSTITUTION_NAME = "SPACE SCIENCE INSTITUTE"
INSTITUTION_NAME = "GERMAN AEROSPACE CENTER"

The Magellan Bistatic Radar team would like to utilize a standard value of "S" for the BAND_NAME keyword. Although the standard value type for this keyword is DYNAMIC, the keyword currently has no standard value list. We therefore request that the standard value type for this keyword be updated to SUGGESTED (which is more consistent with the use of this keyword since SCR3-1105) and that a sample standard value list be created, populated with the items drawn from the keyword description.

Impact Assessment:
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PDS Standards Reference -- no impact
Archive Preparation Guide -- no impact

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Proposer's Archive Guide -- no impact
Planetary Science Data Dictionary -- will need to update the standard
value lists for keywords FACILITY_NAME, INSTITUTION_NAME, and
BAND_NAME and the standard value type for BAND_NAME. The updated
element definition objects are attached below.
PDS tools -- no impact
Existing archives -- no impact
Additional Information:
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( none)

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Requested Changes:
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Update the Planetary Science Data Dictionary as follows:
PDS_VERSION_ID = PDS3
LABEL_REVISION_NOTE = "2003-09-30, RS:simpson Revision;
2004-03-16, SLA, nix std vals, per RS, to allow other values;
2007-02-16 GEO:SHS Updated desc to permit non-spectral
values, increased max length to 50;
2008-09-15 RS:RAS Updated stdvaltype to SUGGESTED and re-introduced
std val list."
OBJECT
= ELEMENT_DEFINITION
    ELEMENT_NAME = "band_name"
    BL_NAME = "bandname"
    DESCRIPTION = "
```

BAND_NAME is the name given to a single band in a multi-band image or image qube. If the band is a spectral band, BAND_NAME refers to the associated spectral range; for example, RED, GREEN, BLUE, $415 \mathrm{~nm}, 750 \mathrm{~nm}, 900 \mathrm{~nm}$. Examples of names of non-spectral bands are 'Phase angle', 'Thermal inertia', 'Bolometric albedo', 'Latitude', 'Elevation in meters relative to MOLA'."

| GENERAL_DATA_TYPE | $=$ "CHARACTER" |
| :--- | :--- |
| MAXIMUM | $=" N / A "$ |
| MINIMUM | $=" N / A "$ |
| MAXIMUM_LENGTH | $=" 50 "$ |
| MINIMUM_LENGTH | $=" 0 "$ |
| STANDARD_VALUE_TYPE | $=" S U G G E S T E D " ~$ |
| STANDARD_VALUE_SET_DESC | $=" N / A "$ |
| KEYWORD_DEFAULT_VALUE | $=" N / A "$ |
| UNIT_ID | $=" n o n e "$ |
| SOURCE_NAME | $=" P D S ~ G E O / S S L A V E R Y " ~$ |
| FORMATION_RULE_DESC | $=$ N/A" |

```
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
= ELEMENT_STANDARD_VALUE
= "415NM"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "750NM"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "900NM"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "BLUE"
= "A"
= "I"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "BOLOMETRIC ALBEDO"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "ELEVATION IN METERS RELATIVE TO MOLA"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "GREEN"
= "A"
= "I"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "LATITUDE"
= "A"
= ""
= "Y"
```

```
        END_OBJECT = ELEMENT_STANDARD_VALUE
        OBJECT = ELEMENT_STANDARD_VALUE
        COLUMN VALUE = "PHASE A
        COLUMN_VALUE_TYPE = "A"
    COLUMN_VALUE_NODE_ID = ""
    OUTPUT_FLAG = "Y"
END_OBJECT = ELEMENT_STANDARD_VALUE
OBJECT = ELEMENT_STANDARD_VALUE
    COLUMN_VALUE = "RED"
    COLUMN_VALUE_TYPE = "A"
    COLUMN_VALUE_NODE_ID = "I"
    OUTPUT_FLAG - = "Y"
END_OBJECT
OBJECT
    COLUMN_VALUE = "THERMAL INERTIA"
    COLUMN_VALUE_TYPE = "A"
    COLUMN_VALUE_NODE_ID = "I"
    OUTPUT_FLAG = "Y"
END_OBJECT = ELEMENT_STANDARD_VALUE
SYSTEM_CLASSIFICATION_ID = "COMMON"
GENERA\overline{L_CLASSIFICATION_TYPE = "INSTRUMENT"}
CHANGE_DATE = "2008-09-15"
STATUS_TYPE = "APPROVED"
STANDARD_VALUE_OUTPUT_FLAG
TEXT_FLAG
TERSE_NAME
= "N"
= "bandname"
SQL_FORMAT = "CHAR(50)"
BL_SQL_FORMAT
= "char(50)"
DISPSLAY_FORMAT
AVAILABLE_VALUE_TYPE
= "JUSTLEFT"
AVAILABLE_VALUE_TYPE = "N"
END_OBJECT = ELEMENT_DEFINITION
END
```

```
PDS_VERSION_ID = PDS3
```

PDS_VERSION_ID = PDS3
LABEL_REVISION_NOTE = "2007-10-09 RINGS:MKG Added SETI
LABEL_REVISION_NOTE = "2007-10-09 RINGS:MKG Added SETI
INSTITUTE;
INSTITUTE;
2008-09-15 RS:RAS Added VEX RS STANFORD UNIVERSITY ELEMENT;
2008-09-15 RS:RAS Added VEX RS STANFORD UNIVERSITY ELEMENT;
2008-09-15 IMG:JMD Added CASSINI IMAGING CENTRAL LABORATORY FOR
2008-09-15 IMG:JMD Added CASSINI IMAGING CENTRAL LABORATORY FOR
OPERATIONS"
OPERATIONS"
OBJECT = ELEMENT DEFINITION
OBJECT = ELEMENT DEFINITION
ELEMENT_NAME = "facility_name"
ELEMENT_NAME = "facility_name"
BL_NAME = "facilityname"
BL_NAME = "facilityname"
DESCRIPTION = "

```
    DESCRIPTION = "
```

The facility_name element identifies a department, laboratory, or subsystem that exists within an institution."

```
GENERAL_DATA_TYPE = "CHARACTER"
```

```
MAXIMUM = "N/A"
MINIMUM = "N/A"
MAXIMUM LENGTH
MINIMUM LENGTH
STANDARD_VALUE_TYPE
STANDARD_VALUE_SET_DESC
KEYWORD_DEFAULT_VALUE
UNIT_ID
SOURCE_NAME
FORMATION_RULE_DESC
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN VALUE NODE ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECTT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
= "60"
= "N/A"
= "DYNAMIC"
= ""
= ""
= "none"
= "PDS CN/G. Woodward"
= ""
= ELEMENT_STANDARD_VALUE
= "APPLIED COHERENT TECHNOLOGY
        CORPORATION"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "APPLIED PHYSICS LAB"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "ATMOSPHERES NODE"
= "A"
= "A"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "BRANCH OF ASTROGEOLOGY"
= "A"
= "I"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "CASSINI IMAGING CENTRAL
    LABORATORY FOR OPERATIONS"
= "A"
= "I"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "CENTER FOR SPACE RESEARCH"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
```

```
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
= ELEMENT_STANDARD_VALUE
= "DEPARTMENT OF ASTRONOMY"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "DEPARTMENT OF ATMOSPHERIC
    SCIENCES"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "EARTH AND PLANETARY REMOTE
        SENSING LABORATORY"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "GEOPHYŞICS AND PLANETARY PHYSICS"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "HERZBERG INSTITUTE OF
        ASTROPHYSICS"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "KOSMOCHEMIE"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "LABORATORY FOR TERRESTRIAL
        PHYSICS"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
```

| COLUMN_VALUE | = "LUNAR AND PLANETARY LABORATORY" |
| :---: | :---: |
| COLUMN_VALUE_TYPE | = "A" |
| COLUMN_VALUE_NODE_ID | = "U" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "MARS SPACE FLIGHT FACILITY" |
| COLUMN_VALUE_TYPE | = "A" |
| COLUMN_VALUE_NODE_ID | = "U" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | $\begin{aligned} & =\text { "MGS RS REMOTE MİSSION SUPPORT } \\ & \text { AREA" } \end{aligned}$ |
| COLUMN_VALUE_TYPE | " " |
| COLUMN_VALUE_NODE_ID | = " |
| OUTPUT_FLAG | = " " |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "MULTIMISSION IMAGE PROCESSING |
| SUBSYSTEM" |  |
| COLUMN_VALUE_TYPE | = "" |
| COLUMN_VALUE_NODE_ID | = "" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | ```= "NAVIGATION ANCILLARY INFORMATION FACILITY"``` |
| COLUMN_VALUE_TYPE | " |
| COLUMN_VALUE_NODE_ID | = " |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "PDS DATA DISTRIBUTION LABORATORY" |
| COLUMN_VALUE_TYPE | = " $"$ |
| COLUMN_VALUE_NODE_ID | = |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "PDS GEOSCIENCES NODE" |
| COLUMN_VALUE_TYPE | = "A" |
| COLUMN_VALUE_NODE_ID | = "U" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "PLANETARY DATA SYSTEM" |
| COLUMN_VALUE_TYPE | " " |

```
    COLUMN_VALUE_NODE_ID = ""
    OUTPUT FLAG = "Y"
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
SYSTEM_CLASSIFICATION_ID
GENERAL_CLASSIFICATION_TYPE
CHANGE_DATE
STATUS_TYPE
STANDARD_VALUE_OUTPUT_FLAG
TEXT_FLAG
TERSE_NAME
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "RADIO SCIENCE SYSTEMS GROUP"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SETI INNSTITUTE"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SPACE SCIENCE LABORATORY"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "TES OPERATIONS FACILITY"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "THE BLA}CKETT LABORORATORY"
= ""
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "VEX RS STANFORD UNIVERSITY
    ELEMENT"
= "A"
= ""
= "Y"
= ELEMENT_STANDARD_VALUE
= "COMMON"
= "PERS"
= "2008-09-15"
= "APPROVED"
= "Y"
= "N"
= "NULL"
```

```
    SQL_FORMAT = "CHAR(60)"
    BL_SQL_FORMAT = "char(60)"
    DISPLAY_FORMAT = "JUSTLEFT"
    AVAILABLE_VALUE_TYPE
= "N"
END_OBJECT - - ELEMENT_DEFINITION
END
```

```
PDS_VERSION_ID = PDS3
```

PDS_VERSION_ID = PDS3
LABEL_REVISION_NOTE = "2007-10-09 RINGS:MKG Added SETI
LABEL_REVISION_NOTE = "2007-10-09 RINGS:MKG Added SETI
INSTITUTE;
INSTITUTE;
2008-09-15 IMG:JMD Added GERMAN AEROSPACE CENTER and SPACE SCIENCE
2008-09-15 IMG:JMD Added GERMAN AEROSPACE CENTER and SPACE SCIENCE
INSTITUTE"

```
INSTITUTE"
```

```
OBJECT = ELEMENT_DEFINITION
```

OBJECT = ELEMENT_DEFINITION
ELEMENT_NAME = "institution_name"
ELEMENT_NAME = "institution_name"
BL_NAME = "instnname"
BL_NAME = "instnname"
DESCRIPTION = "

```
    DESCRIPTION = "
```

The institution_name element identifies a university, research center, or NASA center."

| GENERAL_DATA_TYPE | = "CHARACTER" |
| :---: | :---: |
| MAXIMUM | = "N/A" |
| MINIMUM | = "N/A" |
| MAXIMUM_LENGTH | = "60" |
| MINIMUM_LENGTH | = "N/A" |
| STANDARD_VALUE_TYPE | = "DYNAMIC" |
| STANDARD_VALUE_SET_DESC | = " " |
| KEYWORD_DEFAULT_VALUE | = "" |
| UNIT_ID | = "none" |
| SOURCE_NAME | = "PDS CN/G. Woodward" |
| FORMATION_RULE_DESC | = "" |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "APPLIED COHERENT TECHNOLOGY" |
| COLUMN_VALUE_TYPE | = "A" |
| COLUMN_VALUE_NODE_ID | = "U" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "ARIZONA STATE UNIVERSITY" |
| COLUMN_VALUE_TYPE | = "A" |
| COLUMN_VALUE_NODE_ID | = "C" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |
| OBJECT | = ELEMENT_STANDARD_VALUE |
| COLUMN_VALUE | = "AT\&T BELL LABORATORIES" |
| COLUMN_VALUE_TYPE | = "A" |
| COLUMN_VALUE_NODE_ID | = "U" |
| OUTPUT_FLAG | = "Y" |
| END_OBJECT | = ELEMENT_STANDARD_VALUE |

```
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
```

= ELEMENT_STANDARD_VALUE
= "BOSTON UNIVERSITY"
$=$ "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "BROWN UNIVERSITY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "CALIFORNIA INSTITUTE OF TECHNOLOGY"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "CORNELL UNIVERSITY"
$=$ "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "DECEASED"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "DENISON UNIVERSITY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "GEORGIA INSTITUTE OF TECHNOLOGY"
$=$ "A"
= "C"
$=$ " Y "
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "GERMAN AEROSPACE CENTER"
= "A"
= "I"

```
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
```

= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
$=$ "HERZBERG INSTITUTE OF
ASTROPHYSICS"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
$=$ "HONEYBEE ROBOTICS"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "IMPERIAL COLLEGE"
= "A"
= "U"
$=" Y "$
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "INSTITUTE FOR ASTRONOMY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "ISTITUTO NAZIONALE DI
ASTROFISICA"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "JET PROPULSION LABORATORY"
= "A"
= "IN"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "JOHNS HOPKINS UNIVERSITY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE

```
OBJECT
    COLUMN_VALUE
    COLUMN VALUE TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    TECHNOLOGY"
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
= ELEMENT_STANDARD_VALUE
    COLUMN_VALUE
```

```
    COLUMN_VALUE_TYPE = "A"
    COLUMN_VALUE_NODE_ID = "U"
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "MAX-PLANCK-INSTITUT FUR
    AERONOMIE"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "N/A"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NASA HEADQUARTERS"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NASA/AMES RESEARCH CENTER"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NASA/GODDARD INSTITUTE FOR SPACE
    STUDIES"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NASA/GODDARD SPACE FLIGHT CENTER"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NASA/JOHNSON SPACE CENTER"
= "A"
= "C"
= "Y"
```

```
END_OBJECT
OBJECT
    COLUMN VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN VALUE NODE ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NATIONALL AERONAUTICS SPACE
    MUSEUM"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NATIONAL SPACE SCIENCE DATA
    CENTER"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NEW MEXICO STATE UNIVERSITY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "NORTHWESTERN UNIVERSITY"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "PLANETARY SCIENCE INSTITUTE"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "RADIOPHYSICS INCORPORATED"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "RUSSIAN INSTITUTE OF SPACE
    RESEARCH"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
```

```
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
= ELEMENT_STANDARD_VALUE
    COLUMN_VALUE
= ELEMENT_STANDARD_VALUE
= "SAN JOSE STATE UNIVERSITY"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SCIENCE APPLICATIONS
        INTERNATIONAL CORP"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SETI INSTITUTE"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SMITHSONIAN ASTROPHYSICAL
        OBSERVATORY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SMITHSONIAN INSTITUTE OF
    TECHNOLOGY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SOUTHWEST RESEARCH INSTITUTE"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "SPACE SCIENCE INSTITUTE"
= "A"
= "I"
= "Y"
= ELEMENT_STANDARD_VALUE
= "STANFORD UNIVERSITY"
```

```
    COLUMN_VALUE_TYPE = "A"
    COLUMN_VALUE_NODE_ID = "C"
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJEC
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJEC\overline{CT}
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "STERLING CORPORATION"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "TEXAS A & M UNIVERSITY"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNITED STATES GEOLOGICAL SURVEY"
= "A"
= "R"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITA DEGLI STUDI DI PAVIA"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITA' DI ROMA LA SAPIENZA"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITAT BONN"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITAT KIEL"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
```

```
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
= ELEMENT_STANDARD_VALUE 
```

```
    COLUMN_VALUE_NODE_ID = "F"
    OUTPUT FLAG = "Y"
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
    COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
END_OBJECT
OBJECT
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITY OF KANSAS"
= "A"
= "F"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITY OF MAINZ"
= "A"
= "U"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITY OF MARYLAND"
= "A"
= "C"
\(=\) "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITY OF NEW MEXICO"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
\(=\) "UNIVERSITY OF VIRGINIA"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITY OF WASHINGTON"
= "A"
= "A"
\(=\) "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "UNIVERSITY OF WISCONSIN"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
```

```
        COLUMN_VALUE
    COLUMN_VALUE_TYPE
    COLUMN_VALUE_NODE_ID
    OUTPUT_FLAG
    END_OBJECT
    OBJECT
        COLUMN_VALUE
        COLUMN_VALUE_TYPE
        COLUMN_VALUE_NODE_ID
        OUTPUT_FLAG
    END_OBJECT
    OBJECT
        COLUMN_VALUE
        COLUMN_VALUE_TYPE
        COLUMN_VALUE_NODE_ID
        OUTPUT_FLAG
END_OBJECT
SYSTEM_CLASSIFICATION_ID
GENERAL_CLASSIFICATION_TYPE
CHANGE_DATE
STATUS_TYPE
STANDARD_VALUE_OUTPUT_FLAG
TEXT_FLAG
TERSE_NAME
SQL_FORMAT
BL_SQL_FORMAT
DISPLAY_FORMAT
AVAILABLE_VALUE_TYPE
END_OBJECT
END
```

= "UNK"
" "A"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "WASHINGTON UNIVERSITY"
= "A"
= "I"
= "Y"
= ELEMENT_STANDARD_VALUE
= ELEMENT_STANDARD_VALUE
= "WELLESLEY COLLEGE"
= "A"
= "C"
= "Y"
= ELEMENT_STANDARD_VALUE
= "COMMON"
= "PERS"
= "2008-09-15"
= "APPROVED"
= "Y"
= "N"
= "NULL"
$=" \operatorname{CHAR}(60) "$
$=$ "char (60)"
= "JUSTLEFT"
= "N"
= ELEMENT_DEFINITION

