

PDS4 Data Dictionary - Unabridged - V.0.3.0.0.e

PDS4 Data Design Working Group

Version 0.3.0.0.e - Mon Apr 04 17:36:21 PDT 2011

Generated from the PDS4 Information Model Version 0.3.0.0.e

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1. **Introduction**

The Planetary Data System (PDS) PDS4 Data Dictionary defines the organization and components of PDS4 product labels. Components of a product label include classes and their attributes.

2. **Audience**

The PDS4 Data Dictionary - Unabridged - is intended for use by programmers and data engineers who require formal definitions of the components and the organization of PDS4 products.

3. **Acknowledgements**

The PDS4 Data Dictionary and the PDS4 Information Model is a joint effort involving representatives from each of the PDS nodes functioning as the PDS4 Data Design Working Group.

4. **Scope**

The PDS4 Data Dictionary defines the common and discipline level classes and attributes used to create PDS4 product labels. It also defines the meta-attributes (i.e. attributes about attributes) used to define attributes. This unabridged version includes an entry for each use of an attribute in a class where the abridged version includes only one entry for each attribute.

5. Related Documents

- a. Controlling Documents
 - PDS4 Information Model Specification - The PDS4 Information Model is used as the source for class, attribute, and data type definitions. The model is presented in document format as the PDS4 Information Model Specification.
 - ISO/IEC 11179:3 Registry Metamodel and Basic Attributes Specification, 2003. - The ISO/IEC 11179 specification provides the schema for the PDS4 data dictionary.
- b. Reference Documents
 - Planetary Science Data Dictionary - The online version of the PDS3 data dictionary was used as the source for a few data elements being carried over from the PDS3 data standards.

6. Terminology

This document uses very specific engineering terminology to describe the various structures involved. It is particularly important that readers who have absorbed the PDS Standards Reference bear in mind that terms which are familiar in that context can have very different meanings in the present document.

Following are some definitions of essential terms used throughout this document.

- An *attribute* is a property or characteristic that provides a unit of information about a *class*.
 - A *class* is the set of attributes which identifies a family. A *class* is generic – a template from which individual members of each family may be constructed.
 - A *conceptual object* is an object that is not tangible. For example, a mission is a *conceptual object*.
 - A *data element* is a unit of data for which the definition, identification, representation and *permissible values* are specified by means of a set of attributes. For example, the concept of a *calibration_lamp_state_flag* is used in the PDS archive to indicate whether the lamp used for onboard camera calibration was turned on or off during the capture of an image. The *data element* aspect of this concept is the named attribute (or data element) *calibration_lamp_state_flag*.
 - A *data object* is constructed from a *class*. It is a specific instance of a *class*. A *data object* can be one of three types, digital, conceptual, or physical.
 - A *digital object* is an object consisting of digital information. For example, an image is a *digital object*.
 - *Formal* as used in the definition of attributes that are names indicates that an established procedure was involved in creating the name.
 - A *unique identifier* is a special type of identifier used to provide a reference number which is unique in a context.
 - *Local* indicates a local scope where scope is an enclosing context where values and expressions are associated.
 - *Logical* as used in the definition of logical identifier indicates that the identifier logically groups a set of objects.
 - A *physical object* is an object that is tangible. For example, a spacecraft instrument is a *physical object*.
 - A *resource* is the referent of any Uniform Resource Identifier. The concept of *resource* is primitive in the Web architecture and is used in the definition of its fundamental elements.
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7. PDS4 Attribute Definitions - Mon Apr 04 17:36:21 PDT 2011

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• abstract_desc

steward: **ops**
name space id: **ops**
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The abstract_desc attribute provides a summary of a text, scientific article, or document.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• acknowledgement_text

steward: **pds**
name space id: **pds**
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TEXT** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The acknowledgement_text attribute is a character string which recognizes another's contribution, authority, or right.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **actor_name**

steward: **pds**

name space id: **pds:**

class: **Update_Entry**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The actor_name attribute names the person or organization performing an act.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **affiliation_type**

steward: **pds**

name space id: **pds:**

class: **PDS_Affiliate**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The affiliation type data attribute describes the type of relationship an individual has with the PDS.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **Manager** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Technical_Staff** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Data_Provider** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Affiliate** - begin date: 2009-06-09 - end date: 2019-12-31

- **alternate_id**

steward: **pds**

name space id: **pds:**

class: **Identification_Area**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The alternate id attribute is an additional identifier supplied by the data provider. This identifier has no role in any system function.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **alternate_telephone_number**

steward: **pds**

name space id: **pds:**

class: **PDS_Affiliate**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The telephone_number attribute provides a telephone number in international notation in compliance with the E.164 telephone number format recommendation.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- pattern: **(+{1}[0-9]{2})?([0-9]{3} [0-9]{3} [0-9]{4})**

- **alternate_title**

steward: **pds**

name space id: **pds:**

class: **Identification_Area**

version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_TITLE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The alternate title attribute provides one or more alternate names for a product.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [UTF8_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **application_process_id**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_ID](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The application_process_id identifies the process, or source, which created the data.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **application_process_name**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The application_process_name element provides the name associated with the source or process which created the data.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 256
- permissible value: **APXS** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DESCENT IMAGER** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HAZCAM LEFT FRONT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HAZCAM LEFT REAR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HAZCAM RIGHT FRONT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HAZCAM RIGHT REAR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MB** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MI** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MINITES** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **NAVCAM LEFT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **NAVCAM RIGHT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PANCAM LEFT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PANCAM RIGHT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **RAT** - begin date: 2009-06-09 - end date: 2019-12-31

- **application_process_subtype_id**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_ID](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The application_process_subtype_id element identifies the source or subprocess that created the data.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 2

- **archive_status**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_STATUS](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The ARCHIVE_STATUS attribute indicates the stage to which a data set has progressed in the archiving process, from "IN QUEUE" through "ARCHIVED". It can also take on the values "SUPERSEDED" or "SAFED", which indicate that the data set is not part of the active archive. "ACCUMULATING" can be appended to some values to indicate that the data set is incomplete and/or that not all components have reached the stage given by the root value; "ACCUMULATING" would be used, for example, when the archive is being delivered incrementally, as from a mission that lasts many months or years.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: **ARCHIVED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_LIEN_RESOLUTION** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_PEER_REVIEW** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_QUEUE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LOCALLY_ARCHIVED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PRE_PEER_REVIEW** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SAFED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SUPERSEDED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_QUEUE_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PRE_PEER_REVIEW_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_PEER_REVIEW_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_LIEN_RESOLUTION_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LOCALLY_ARCHIVED_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ARCHIVED_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31

- **archive_status**

steward: **ops**

name space id: **ops:**

class: **Volume_PDS3**

version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_STATUS](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The ARCHIVE_STATUS attribute indicates the stage to which a data set has progressed in the archiving process, from "IN QUEUE" through "ARCHIVED". It can also take on the values "SUPERSEDED" or "SAFED", which indicate that the data set is not part of the active archive. "ACCUMULATING" can be appended to some values to indicate that the data set is incomplete and/or that not all components have reached the stage given by the root value; "ACCUMULATING" would be used, for example, when the archive is being delivered incrementally, as from a mission that lasts many months or years.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: **ARCHIVED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_LIEN_RESOLUTION** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_PEER_REVIEW** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_QUEUE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LOCALLY_ARCHIVED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PRE_PEER_REVIEW** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SAFED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SUPERSEDED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_QUEUE_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PRE_PEER_REVIEW_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_PEER_REVIEW_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IN_LIEN_RESOLUTION_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LOCALLY_ARCHIVED_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ARCHIVED_ACCUMULATING** - begin date: 2009-06-09 - end date: 2019-12-31

- **archive_status_note**

steward: **ops**

name space id: **ops:**

class: **Volume_PDS3**

version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NOTE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The archive status note attribute provides a comment about the archive status.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1

- maximum_characters: 255

- **author_list**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LIST** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The author list attribute lists the composers of a work.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: 1
- maximum_characters: 510

- **axes**

steward: **pds**
name space id: **pds**:
class: **Array_2D**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The axes attribute provides a count of the axes.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: 1
- maximum_value: 16
- permissible value: 2 - begin date: 2009-06-09 - end date: 2019-12-31

- **axes**

steward: **pds**
name space id: **pds**:
class: **Array_3D**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The axes attribute provides a count of the axes.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: 1
- maximum_value: 16
- permissible value: 3 - begin date: 2009-06-09 - end date: 2019-12-31

- **axes**

steward: **pds**
name space id: **pds**:
class: **Array_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The axes attribute provides a count of the axes.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: 1
- maximum_value: 16

- **axis_order**

steward: **pds**
name space id: **pds**:
class: **Array_2D_Image**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ORDER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The axes order attribute indicates the axis index that varies the fastest with respect to axis element storage order.**

- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **FIRST_INDEX_FASTEST** - begin date: 2009-06-09 - end date: 2019-12-31

- **axis_order**

steward: **pds**
name space id: **pds**:
class: **Array_3D_Image**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ORDER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The axis order attribute gives the axis index that varies fastest with respect to storage order.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **FIRST_INDEX_FASTEST** - begin date: 2009-06-09 - end date: 2019-12-31

- **axis_order**

steward: **pds**
name space id: **pds**:
class: **Array_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ORDER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The axis order attribute gives the axis index that varies fastest with respect to storage order.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **FIRST_INDEX_FASTEST** - begin date: 2009-06-09 - end date: 2019-12-31

- **a_axis_radius**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RADIUS** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Length**
- default_unit_id: **m**

- **begin_date**

steward: **pds**
name space id: **pds**:
class: **Permissible_Value**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The begin_date attribute provides the lower bound of the time interval within which the defined item is in effect.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_YMD**
- minimum_characters: **1**
- maximum_characters: **10**

- **bits**

steward: **pds**

name space id: **pds**:
class: **Table_Binary_Grouped_Bit_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The bits attribute provides the number of bits**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **32**

- **bit_mask**

steward: **pds**
name space id: **pds**:
class: **Table_Binary_Grouped_Bit_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MASK** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The bit mask attribute provides a bit mask**
- **value domain** - conceptual domain: **CD_BASE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Numeric_Base2**

- **bytes**

steward: **pds**
name space id: **pds**:
class: **Header**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The bytes attribute provides the number of bytes.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **b_axis_radius**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RADIUS** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Length**
- default_unit_id: **m**

- **center_latitude**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LATITUDE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-90.0**
- maximum_value: **90.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **center_longitude**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LONGITUDE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-180.0**
- maximum_value: **360.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

• **citation_text**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The citation_text attribute is a character string containing a literature or other citation in sufficient detail that the material could be located in PDS or elsewhere.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **citation_text**

steward: **pds**
name space id: **pds**:
class: **Citation**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The citation_text attribute is a character string containing a literature or other citation in sufficient detail that the material could be located in PDS or elsewhere.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

• **class_name**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The class_name attribute provides a common name for a class.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **class_name**

steward: **pds**
name space id: **pds**:
class: **Name_Resolution**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The class_name attribute provides a common name for a class.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **coefficient_1**

steward: **img**
name space id: **img**:
class: **Coefficients_Array**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain:**CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **coefficient_2**

steward: **img**
name space id: **img**:
class: **Coefficients_Array**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain:**CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **coefficient_3**

steward: **img**
name space id: **img**:
class: **Coefficients_Array**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain:**CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **comment**

steward: **img**
name space id: **img**:
class: **Imaging**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The comment element provides an optional remark or observation about the current class.**
- **value domain** - conceptual domain:**CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **comment**

steward: **ops**
name space id: **ops**:
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The comment attribute is a character string expressing one or more remarks or thoughts relevant to the object.**
- **value domain** - conceptual domain:**CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **comment**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The comment attribute is a character string expressing one or more remarks or thoughts relevant to the object.**
- **value domain** - conceptual domain:**CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **comment**

steward: **pds**
name space id: **pds**:
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The comment attribute is a character string expressing one or more remarks or thoughts relevant to the object.**
- **value domain** - conceptual domain:**CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **comment**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The comment attribute is a character string expressing one or more remarks or thoughts relevant to the object.**
- **value domain** - conceptual domain:**CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **comment**

steward: **pds**
name space id: **pds**:
class: **TDO_Structures**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The comment attribute is a character string expressing one or more remarks or thoughts relevant to the object.**
- **value domain** - conceptual domain:**CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **conceptual_domain**

steward: **pds**
name space id: **pds**:
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The conceptual_domain element indicates the domain to which the value domain is assigned.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)

- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **confidence_level_note**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_NOTE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The confidence_level_note attribute is a text field which characterizes the reliability of data within a data set or the reliability of a particular programming algorithm or software component. Essentially, this note discusses the level of confidence in the accuracy of the data or in the ability of the software to produce accurate results.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **constant_value**

steward: **ops**
name space id: **ops**:
class: **Local_Association**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_VALUE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The constant value attribute provides the value to be used if an attribute is static.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **container_type**

steward: **ops**
name space id: **ops**:
class: **Product_Zipped**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_TYPE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The container type attribute indicates the method used to package the components.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: **ZIP** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **GZIP** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LZIP** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **TAR** - begin date: 2009-06-09 - end date: 2019-12-31

- **contains_primary_member**

steward: **pds**
name space id: **pds**:
class: **Identification_Area_Collection**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_VALUE2](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The contains_primary_member attribute indicates whether a collection contains products that are primary members of the collection.**
- **value domain** - conceptual domain: [CD_BOOLEAN](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Boolean_TF](#)

- **coordinate_system_name**

steward: **img**
name space id: **img**:

class: **Coordinate_System**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **This attribute is used in the image map projection. Under review. xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **apxs_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **body_fixed_spherical_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **earth-sun_line_cartes_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ecliptic_inertial_cart_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ecliptic_inertl_sphercl_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **equatorial_inert_sphrcl_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **equatorial_inertial_cart_coord** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **jupiter_minus_system_iii** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mast_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mb_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mean_inertial_hg_1950** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mi_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **neptune_west_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **non-rotating_spin_coordinates** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **planet_centered_cylindrical** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **planetocentric** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **planetographic** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pvo_inertial_spacecraft_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pvo_spinning_spacecraft_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rat_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rover_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **saturn_minus_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sc_centered_ecliptic_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **uranus_minus_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **uranus_west_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31

- **coordinate_system_name**

steward: **img**

name space id: **img:**

class: **Image_Map_Projection**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **This attribute is used in the image map projection. Under review. xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **apxs_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **body_fixed_spherical_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **earth-sun_line_cartes_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ecliptic_inertial_cart_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ecliptic_inertl_sphercl_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **equatorial_inert_sphrcl_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **equatorial_inertial_cart_coord** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **jupiter_minus_system_iii** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mast_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mb_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mean_inertial_hg_1950** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mi_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **neptune_west_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **non-rotating_spin_coordinates** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **planet_centered_cylindrical** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **planetocentric** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **planetographic** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pvo_inertial_spacecraft_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pvo_spinning_spacecraft_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rat_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rover_frame** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **saturn_minus_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sc_centered_ecliptic_coords** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **uranus_minus_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **uranus_west_longitude_system** - begin date: 2009-06-09 - end date: 2019-12-31

- **coordinate_system_type**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **25**
- permissible value: **body-fixed_non-rotating** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **body-fixed_rotating** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **inertial** - begin date: 2009-06-09 - end date: 2019-12-31

- **copyright**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The copyright attribute is a character string giving information about the exclusive right to make copies, license, and otherwise exploit an object, whether physical or digital.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **cosine**

steward: **img**
name space id: **img**:
class: **Quaternion**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COSINE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **creation_date_time**

steward: **pds**
name space id: **pds**:
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The creation date time attribute provides a date and time when the object was created.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_Time**

- **curating_node_id**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The curating_node_id attribute provides the id of the node currently maintaining the data set or volume and is responsible for maintaining catalog information.**

- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **c_axis_radius**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RADIUS** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Length**
- default_unit_id: **m**

- **data_element_concept**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_element_concept attribute is a classification of the data elements. The data element concept for axes is DEC_COUNT since all data elements ending in "s" imply count.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **data_set_id**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_set_id element is a unique alphanumeric identifier for a data set or a data product. The data_set_id value for a given data set or product is constructed according to flight project naming conventions. In most cases the data_set_id is an abbreviation of the data_set_name. Example value In the PDS data_set_name are constructed according to standards outlined in the Standards Reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 40

- **data_set_id**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data set id provides a formal name used to refer to a data set.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **data_set_name**

steward: **ops**

name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_set_name attribute provides the full name given to a data set or a data product. The data_set_name typically identifies the instrument that acquired the data of that instrument Example value data_set_id. Note This attribute is defined in the AMMOS Magellan catalog as an alias for file_name to provide backward compatibility**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **data_set_name**

steward: **pds**
name space id: **pds**:
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_set_name attribute provides the full name given to a data set or a data product. The data_set_name typically identifies the instrument that acquired the data of that instrument Example value data_set_id. Note This attribute is defined in the AMMOS Magellan catalog as an alias for file_name to provide backward compatibility**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **data_set_release_date**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_set_release_date attribute provides the date when a data set is released by the data producer for archive or publication. In many systems this represents the end of a proprietary or validation period. Formation rule In AMMOS identify the date at which a product may be released to the general public from proprietary access. AMMOS-related systems should apply this attribute only to proprietary data.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **data_set_terse_desc**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **A one line description of the data set**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **data_type**

steward: **ops**
name space id: **ops**:
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_type attribute provides the hardware representation used to store a value.**

- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 30
- permissible value: [ASCII_Boolean_TF](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_YMD](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Integer](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Real](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_AnyURI](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_DOY](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_DOY](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_UTC](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_YMD](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_LID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_LIDVID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_MD5_Checksum](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Short_String_Collapsed](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Text_Preserved](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Short_String_Preserved](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Time](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_VID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_DOI](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Numeric_Base2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Numeric_Base16](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_NonNegative_Integer](#) - begin date: 2009-06-09 - end date: 2019-12-31

- **data_type**

steward: **pds**

name space id: **pds:**

class: **Array_Element**

version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_TYPE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_type attribute provides the hardware representation used to store a value.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 30
- permissible value: [IEEE754Single](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [IEEE754Double](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [UnsignedByte](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedMSB2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedMSB4](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedMSB8](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedLSB4](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedLSB2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedLSB8](#) - begin date: 2009-06-09 - end date: 2019-12-31

- **data_type**

steward: **pds**

name space id: **pds:**

class: **Value_Domain**

version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_TYPE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The data_type attribute provides the hardware representation used to store a value.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 30
- permissible value: [ASCII_Boolean_TF](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_YMD](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Integer](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Real](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_AnyURI](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_DOY](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_UTC](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_YMD](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_LID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_LIDVID](#) - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **ASCII_MD5_Checksum** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Short_String_Collapsed** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Text_Preserved** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Short_String_Preserved** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Time** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_VID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_DOI** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Numeric_Base2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Numeric_Base16** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_NonNegative_Integer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_File_Specification_Name** - begin date: 2009-06-09 - end date: 2019-12-31

- **date_time**

steward: **pds**
name space id: **pds**:
class: **Update_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The date_time attribute provides the date and time of an event.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_Time**

- **default_unit_id**

steward: **pds**
name space id: **pds**:
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The default unit id attribute provides the unit id used when minimum and maximum values are provided as attribute constraints in the data dictionary.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **definition**

steward: **ops**
name space id: **ops**:
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The definition attribute provides a statement, picture in words, or account that describes.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **definition**

steward: **pds**
name space id: **pds**:
class: **Terminological_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The definition attribute provides a statement, picture in words, or account that describes.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **description**

steward: **ops**

name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **description**

steward: **ops**
name space id: **ops**:
class: **Local_Class**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

• **description**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

• **description**

steward: **pds**
name space id: **pds**:
class: **Document_Format**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

• **description**

steward: **pds**
name space id: **pds**:
class: **Header**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **description**

steward: **pds**
name space id: **pds:**
class: **Investigation**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **description**

steward: **pds**
name space id: **pds:**
class: **Resource**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **An account of the resource. Description may include but is not limited to: an abstract, a table of contents, a graphical representation, or a free-text account of the resource. Dublin Core**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **description**

steward: **pds**
name space id: **pds:**
class: **TNDO_Context**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **description**

steward: **pds**
name space id: **pds:**
class: **TNDO_Supplemental**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **description**

steward: **pds**
name space id: **pds:**
class: **Update_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The description attribute is a character string that provides a statement, picture in words, or account that describes or is otherwise relevant to the object. Dublin Core: An account of the resource.**

- **value domain** - conceptual domain:[CD_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Text_Preserved](#)
- minimum_characters: 1
- maximum_characters: **2147483647**

- **designation**

steward: **pds**
name space id: **pds**:
class: **Terminological_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_VALUE2](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The designation attribute provides a name.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **directory_path_name**

steward: **pds**
name space id: **pds**:
class: **Document_File**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The directory path name attribute provides a sequence of names that locates a directory in a hierarchy of directories.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **directory_path_name**

steward: **pds**
name space id: **pds**:
class: **Manifest_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The directory path name attribute provides a sequence of names that locates a directory in a hierarchy of directories.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **document_title**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_TITLE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The document_title attribute provides the full name of the published document. This optional attribute is used only if the title in the identification area of the document product is not sufficient.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [UTF8_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **doi**

steward: **pds**
name space id: **pds**:
class: **Bibliographic_Reference**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_DOI](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The doi attribute gives the Digital Object Identifier for an object, assigned by the appropriate DOI System Registration Agency.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **doi**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_DOI](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The doi attribute gives the Digital Object Identifier for an object, assigned by the appropriate DOI System Registration Agency.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **doi**

steward: **pds**
name space id: **pds**:
class: **Reference**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_DOI](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The doi attribute gives the Digital Object Identifier for an object, assigned by the appropriate DOI System Registration Agency.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **earth_received_start_time**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_DATE_TIME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The earth_received_start_time element provides the beginning time at which telemetry was received during a time period of interest.**
- **value domain** - conceptual domain:[CD_TIME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Date_Time](#)

- **earth_received_stop_time**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_DATE_TIME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The earth_received_stop_time element provides the ending time for receiving telemetry during a time period of interest.**
- **value domain** - conceptual domain:[CD_TIME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Date_Time](#)

- **eastern_most_longitude**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LONGITUDE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **editor_list**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LIST](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The editor list attribute lists the editors of a work.**
- **value domain** - conceptual domain: [CD_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Text_Preserved](#)
- minimum_characters: 1
- maximum_characters: 510

- **edit_mode_id**

steward: **img**
name space id: **img**:
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_ID](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This element indicates the amount of data read from an imaging instrument's vidicon. '1:1' indicates the full-resolution of the vidicon. Example values: (Voyager) 3:4, 1:2, 1:3, 1:5, and 1:1.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 100

- **electronic_mail_address**

steward: **pds**
name space id: **pds**:
class: **PDS_Affiliate**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_ADDRESS](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The electronic mail address attribute provides a mulri-part email address: the first part (the user name), which identifies a unique user, is separated by an "at sign" from the host name, which uniquely identifies the mail server.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **electronic_mail_address**

steward: **pds**
name space id: **pds**:
class: **PDS_Guest**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_ADDRESS](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The electronic mail address attribute provides a mulri-part email address: the first part (the user name), which identifies a unique user, is separated by an "at sign" from the host name, which uniquely identifies the mail server.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **elements**

steward: **pds**
name space id: **pds**:
class: **Array_Axis**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The elements attribute provides the count of the number of elements in an axis.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

• **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Array_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31

• **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Document_File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31

• **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Encoded_Byte_Stream**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31

• **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Parsable_Byte_Stream**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**

- permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31

- **encoding_type**

steward: **pds**
name space id: **pds**:
class: **SPICE_Kernel_Text**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31

- **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31

- **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Table_Base_Binary**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31

- **encoding_type**

steward: **pds**
name space id: **pds**:
class: **Table_Base_Character**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **30**
- permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31

- **encoding_type**

steward: **pds**
name space id: **pds**:
class: **TDO_Structures**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)

- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 30

- **encoding_type**

steward: **pds**
name space id: **pds**:
class: **XML_Schema**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: Beta_DD_0.3.0.0.e
- description: **The encoding type attribute indicates the storage algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: 30
- permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31

- **end_date**

steward: **pds**
name space id: **pds**:
class: **Permissible_Value**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE** - administration_record: Beta_DD_0.3.0.0.e
- description: **The end_date attribute provides the upper bound of the time interval within which the defined item is in effect.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Date_YMD**
- minimum_characters: 1
- maximum_characters: 10

- **error_constant**

steward: **pds**
name space id: **pds**:
class: **Special_Constants**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CONSTANT** - administration_record: Beta_DD_0.3.0.0.e
- description: **The error_constant attribute provides a value that indicates the original value was in error.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **expected_packets**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: Beta_DD_0.3.0.0.e
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Integer**
- minimum_value: 0
- maximum_value: 2147483647

- **exposure_duration**

steward: **img**
name space id: **img**:
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DURATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This element provides the value of the time interval between the opening and closing of an instrument aperture (such as a camera shutter).**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Time**
- default_unit_id: **s**

- **external_standard_id**

steward: **pds**
name space id: **pds**:
class: **Document_File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **PDF-A** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ENCAPSULATED_POSTSCRIPT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **GIF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HTML** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **JPG** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LaTeX** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MICROSOFT_WORD** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PNG** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **POSTSCRIPT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **RICH_TEXT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **TEXT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **TIFF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PDF** - begin date: 2009-06-09 - end date: 2019-12-31

- **external_standard_id**

steward: **pds**
name space id: **pds**:
class: **Encoded_Byte_Stream**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **external_standard_id**

steward: **pds**
name space id: **pds**:
class: **Encoded_Image**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **JPEG** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **GIF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **TIFF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PDF** - begin date: 2009-06-09 - end date: 2019-12-31

- **external_standard_id**

steward: **pds**
name space id: **pds:**
class: **File_PDF**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **PDF** - begin date: 2009-06-09 - end date: 2019-12-31

- **external_standard_id**

steward: **pds**
name space id: **pds:**
class: **Header**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **VICAR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ODL** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **FITS** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ISIS** - begin date: 2009-06-09 - end date: 2019-12-31

- **external_standard_id**

steward: **pds**
name space id: **pds:**
class: **Parsable_Byte_Stream**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **external_standard_id**

steward: **pds**
name space id: **pds:**
class: **SPICE_Kernel_Binary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **SPICE** - begin date: 2009-06-09 - end date: 2019-12-31

- **external_standard_id**

steward: **pds**
name space id: **pds:**

class: **SPICE_Kernel_Text**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **SPICE** - begin date: 2009-06-09 - end date: 2019-12-31

• **external_standard_id**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **CSV** - begin date: 2009-06-09 - end date: 2019-12-31

• **external_standard_id**

steward: **pds**
name space id: **pds**:
class: **XML_Schema**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The external standard id attribute provides the formal name of a standard not under PDS governance.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **XML_Schema** - begin date: 2009-06-09 - end date: 2019-12-31

• **fields**

steward: **pds**
name space id: **pds**:
class: **Inventory_LIDVID_Primary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The fields attribute provides a count of the fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: **1**
- maximum_value: **2147483647**
- permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31

• **fields**

steward: **pds**
name space id: **pds**:
class: **Inventory_LIDVID_Secondary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The fields attribute provides a count of the fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: **1**

- maximum_value: **2147483647**
- permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31

- **fields**

steward: **pds**
name space id: **pds:**
class: **Inventory_LID_Secondary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The fields attribute provides a count of the fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: **1**
- maximum_value: **2147483647**
- permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31

- **fields**

steward: **pds**
name space id: **pds:**
class: **Manifest**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The fields attribute provides a count of the fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: **1**
- maximum_value: **2147483647**
- permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31

- **fields**

steward: **pds**
name space id: **pds:**
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The fields attribute provides a count of the fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **fields**

steward: **pds**
name space id: **pds:**
class: **Table_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The fields attribute provides a count of the fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_bytes**

steward: **pds**
name space id: **pds:**
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field bytes attribute provides the maximum number of bytes allowed for a field.**

- **value domain** - conceptual domain:[CD_INTEGER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Integer](#)
- minimum_value: 1
- maximum_value: 2147483647

- **field_data_type**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_TYPE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: [ASCII_Boolean_TF](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_YMD](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Integer](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Real](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_AnyURI](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_DOY](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_DOY](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_UTC](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Date_Time_YMD](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_LID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_LIDVID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_MD5_Checksum](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Short_String_Collapsed](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Text_Preserved](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Short_String_Preserved](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Time](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_VID](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_DOI](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Numeric_Base2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_Numeric_Base16](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_NonNegative_Integer](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ASCII_File_Specification_Name](#) - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**
name space id: **pds**:
class: **Table_Binary_Field**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_TYPE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: [Bit](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ComplexB16](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [ComplexB8](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedLSB2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedLSB4](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedLSB8](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedMSB2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedMSB4](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [SignedMSB8](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [UnsignedByte](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [UnsignedLSB2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [UnsignedLSB4](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [UnsignedMSB2](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [UnsignedMSB4](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [IEEE754Double](#) - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: [IEEE754Single](#) - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**

name space id: **pds:**

class: **Table_Binary_Grouped_Bit_Field**

version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **Bit** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**

name space id: **pds:**

class: **Table_Binary_Grouped_Field**

version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **Bit** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ComplexB16** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ComplexB8** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SignedLSB2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SignedLSB4** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SignedLSB8** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SignedMSB2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SignedMSB4** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SignedMSB8** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnsignedByte** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnsignedLSB2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnsignedLSB4** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnsignedMSB2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnsignedMSB4** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IEEE754Double** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IEEE754Single** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**

name space id: **pds:**

class: **Table_Character_Field**

version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ASCII_Boolean_TF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_YMD** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Integer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Real** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_AnyURI** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_DOY** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_Time_DOY** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_Time_UTC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_Time_YMD** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_LID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_LIDVID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_MD5_Checksum** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Short_String_Collapsed** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Text_Preserved** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **ASCII_Short_String_Preserved** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Time** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_VID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_DOI** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Numeric_Base2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Numeric_Base16** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_NonNegative_Integer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_File_Specification_Name** - begin date: 2009-06-09 - end date: 2019-12-31

• field_data_type

steward: **pds**

name space id: **pds:**

class: **Table_Character_Grouped_Field**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ASCII_Boolean_TF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_YMD** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Integer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Real** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_AnyURI** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_DOY** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_Time_DOY** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_Time_UTC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Date_Time_YMD** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_LID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_LIDVID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_MD5_Checksum** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Short_String_Collapsed** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Text_Preserved** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Short_String_Preserved** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Time** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_VID** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_DOI** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Numeric_Base2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_Numeric_Base16** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_NonNegative_Integer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ASCII_File_Specification_Name** - begin date: 2009-06-09 - end date: 2019-12-31

• field_data_type

steward: **pds**

name space id: **pds:**

class: **Table_Field**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• field_data_type

steward: **pds**

name space id: **pds:**

class: **Table_Field_Checksum**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**

- maximum_characters: **255**
- permissible value: **ASCII_MD5_Checksum** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**
name space id: **pds**:
class: **Table_Field_File_Specification_Name**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ASCII_File_Specification_Name** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ASCII_LID** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_data_type**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LIDVID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field data type indicates the machine representation in which a field value is digitally stored.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ASCII_LIDVID** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_delimiter**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DELIMITER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field delimiter provides the character or characters that indicate the end of a character string.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **2**
- maximum_characters: **255**
- permissible value: **0x09** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **0x3B** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **0x7C** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **0x2C** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_description**

steward: **pds**
name space id: **pds**:

class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The field description attribute provides a statement, picture in words, or account that describes a field.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **field_description**

steward: **pds**
name space id: **pds:**
class: **Table_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DESCRIPTION** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The field description attribute provides a statement, picture in words, or account that describes a field.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Text_Preserved**
- minimum_characters: **1**
- maximum_characters: **2147483647**

- **field_format**

steward: **pds**
name space id: **pds:**
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The field format attribute indicates how a field value is to be presented in printable characters. The allowed formats are Fortran and C printing formats.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_format**

steward: **pds**
name space id: **pds:**
class: **Table_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The field format attribute indicates how a field value is to be presented in printable characters. The allowed formats are Fortran and C printing formats.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_format**

steward: **pds**
name space id: **pds:**
class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The field format attribute indicates how a field value is to be presented in printable characters. The allowed formats are Fortran and C printing formats.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_format**

steward: **pds**
name space id: **pds**:
class: **Table_Field_File_Specification_Name**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field format attribute indicates how a field value is to be presented in printable characters. The allowed formats are Fortran and C printing formats.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **dir1/dir2/file_name.file_extension** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_format**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field format attribute indicates how a field value is to be presented in printable characters. The allowed formats are Fortran and C printing formats.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **URN:NASA:PDS:xxxx** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_format**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LIDVID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field format attribute indicates how a field value is to be presented in printable characters. The allowed formats are Fortran and C printing formats.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **URN:NASA:PDS:xxxx::M.n** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_length**

steward: **pds**
name space id: **pds**:
class: **Table_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LENGTH** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field length attribute indicates the maximum number of characters allowed for a value in a field.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_length**

steward: **pds**
name space id: **pds**:
class: **Table_Field_File_Specification_Name**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LENGTH** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field length attribute indicates the maximum number of characters allowed for a value in a field.**

- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_length**

steward: **pds**
name space id: **pds:**
class: **Table_Field_LIDVID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LENGTH** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field length attribute indicates the maximum number of characters allowed for a value in a field.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_location**

steward: **pds**
name space id: **pds:**
class: **Table_Character_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LOCATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field location attribute indicates the starting position for a field in a record.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_location**

steward: **pds**
name space id: **pds:**
class: **Table_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LOCATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field location attribute indicates the starting position for a field in a record.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_location**

steward: **pds**
name space id: **pds:**
class: **Table_Field_File_Specification_Name**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LOCATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field location attribute indicates the starting position for a field in a record.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **field_location**

steward: **pds**
name space id: **pds:**
class: **Table_Field_LID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LOCATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field location attribute indicates the starting position for a field in a record.**

- **value domain** - conceptual domain:[CD_INTEGER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Integer](#) - Enumerated
- minimum_value: 1
- maximum_value: **2147483647**
- permissible value: 1 - begin date: 2009-06-09 - end date: 2019-12-31

- **field_location**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LIDVID**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_LOCATION](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field location attribute indicates the starting position for a field in a record.**
- **value domain** - conceptual domain:[CD_INTEGER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Integer](#) - Enumerated
- minimum_value: 1
- maximum_value: **2147483647**
- permissible value: 1 - begin date: 2009-06-09 - end date: 2019-12-31

- **field_max_logical**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_LOGICAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field max logical attribute provides the maximum valid operating range for an instrument (with the same scaling factors and offsets applied to the data values).**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **field_max_logical**

steward: **pds**
name space id: **pds**:
class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_LOGICAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field max logical attribute provides the maximum valid operating range for an instrument (with the same scaling factors and offsets applied to the data values).**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **field_min_logical**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_LOGICAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field min logical attribute provides the minimum valid operating range for an instrument (with the same scaling factors and offsets applied to the data values).**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: **255**

- **field_min_logical**

steward: **pds**
name space id: **pds**:

class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LOGICAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field min logical attribute provides the minimum valid operating range for an instrument (with the same scaling factors and offsets applied to the data values).**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_name**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field name attribute provides a word or a combination of words by which a field is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_name**

steward: **pds**
name space id: **pds**:
class: **Table_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field name attribute provides a word or a combination of words by which a field is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_name**

steward: **pds**
name space id: **pds**:
class: **Table_Field_Checksum**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field name attribute provides a word or a combination of words by which a field is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **MD5_checksum** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_name**

steward: **pds**
name space id: **pds**:
class: **Table_Field_File_Specification_Name**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field name attribute provides a word or a combination of words by which a field is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **file_specification_name** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_name**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field name attribute provides a word or a combination of words by which a field is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **LID** - begin date: 2009-06-09 - end date: 2019-12-31

• **field_name**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LIDVID**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field name attribute provides a word or a combination of words by which a field is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **LIDVID** - begin date: 2009-06-09 - end date: 2019-12-31

• **field_number**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field number attribute provides the location of a field in a series of fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

• **field_number**

steward: **pds**
name space id: **pds**:
class: **Table_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field number attribute provides the location of a field in a series of fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

• **field_number**

steward: **pds**
name space id: **pds**:
class: **Table_Field_Checksum**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field number attribute provides the location of a field in a series of fields.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer** - Enumerated
- minimum_value: **-2147483648**
- maximum_value: **2147483647**
- permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_number**

steward: **pds**
name space id: **pds**:
class: **Table_Field_File_Specification_Name**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NUMBER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field number attribute provides the location of a field in a series of fields.**
- **value domain** - conceptual domain:[CD_INTEGER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Integer](#) - Enumerated
- minimum_value: **1**
- maximum_value: **2147483647**
- permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_number**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LID**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NUMBER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field number attribute provides the location of a field in a series of fields.**
- **value domain** - conceptual domain:[CD_INTEGER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Integer](#) - Enumerated
- minimum_value: **1**
- maximum_value: **2147483647**
- permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_number**

steward: **pds**
name space id: **pds**:
class: **Table_Field_LIDVID**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NUMBER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field number attribute provides the location of a field in a series of fields.**
- **value domain** - conceptual domain:[CD_INTEGER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Integer](#) - Enumerated
- minimum_value: **1**
- maximum_value: **2147483647**
- permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_scaling_factor**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_FACTOR](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field scaling factor attribute provides a number which scales or multiplies with the value of the field.**
- **value domain** - conceptual domain:[CD_REAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Real](#)
- minimum_value: **-INF**
- maximum_value: **INF**

- **field_scaling_factor**

steward: **pds**
name space id: **pds**:
class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_FACTOR](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field scaling factor attribute provides a number which scales or multiplies with the value of the field.**
- **value domain** - conceptual domain:[CD_REAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)

- data_type: [ASCII_Real](#)
- minimum_value: **-INF**
- maximum_value: **INF**

- **field_unit**

steward: **pds**

name space id: **pds:**

class: **Stream_Delimited_Field**

version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_UNIT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field unit attribute indicates the unit of measurement associated with a field value.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **mol** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcmin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcsec** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mrad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hz** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **AU** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Angstrom** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **micrometer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **nm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **g** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **none** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **airmass** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Pa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **bar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hPa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mbar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **W*m**-2*sr**-1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **counts/bin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kilobits/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **electron/DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel/deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **byte** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **degC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **microseconds** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **min** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ms** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **yr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **V** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mV** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**3** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_unit**

steward: **pds**

name space id: **pds:**

class: **Table_Field_Extended**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_UNIT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field unit attribute indicates the unit of measurement associated with a field value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **mol** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcmin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcsec** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mrad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hz** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **AU** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Angstrom** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **micrometer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **nm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **g** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **none** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **airmass** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Pa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **bar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hPa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mbar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **W*m**-2*sr**-1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **counts/bin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kilobits/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **electron/DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel/deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **byte** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **degC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **microseconds** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **min** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ms** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **yr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **V** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mV** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**3** - begin date: 2009-06-09 - end date: 2019-12-31

- **field_value_offset**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field value offset attribute provides a number that indicates a displacement from the value in the field.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **field_value_offset**

steward: **pds**
name space id: **pds**:
class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The field value offset attribute provides a number that indicates a displacement from the value in the field.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **file_name**

steward: **pds**
name space id: **pds**:
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The file name attribute provides the name of a file.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **120**

- **file_name**

steward: **pds**
name space id: **pds**:
class: **Manifest_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The file name attribute provides the name of a file.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **120**

- **file_size**

steward: **pds**
name space id: **pds**:
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_SIZE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The file size attribute provides the size of the file.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **-2147483648**
- maximum_value: **2147483647**

- **file_specification_name**

steward: **pds**
name space id: **pds**:
class: **Bundle_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The file specification name attribute provides the file_name prepended by the directory_path to the file.**
- **value domain** - conceptual domain: **CD_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_File_Specification_Name**
- minimum_characters: **1**
- maximum_characters: **255**

- **file_specification_name**

steward: **pds**
name space id: **pds**:
class: **Zippered_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The file specification name attribute provides the file_name prepended by the directory_path to the file.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **filter_id**

steward: **img**
name space id: **img**:
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **(Old filter_number) This element provides the unique identifier of an instrument filter through which an image or measurement was acquired or which is associated with a given instrument mode.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **0** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **3** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **4** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **5** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **6** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **7** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **8** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **A** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **B** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **C1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **C2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **C3** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **D** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HFM1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LFM1** - begin date: 2009-06-09 - end date: 2019-12-31

- **filter_name**

steward: **img**
name space id: **img**:
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This element provides the commonly-used name of the instrument filter through which an image or measurement was acquired or which is associated with a given instrument mode.**

- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **A** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **B** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **BLUE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **BLUE-GREEN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **C** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **CLEAR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **D** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **E** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **F** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **GREEN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IR-7270** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IR-7560** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IR-8890** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IR-9680** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L1000_R480** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L440_R440** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L450_R670** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L670_R670** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L800_R750** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L860_R-DIOPTER** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L885_R947** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L900_R600** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L925_R935** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L930_R530** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L935_R990** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L965_R965** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LONGWAVE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **METHANE-JST** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **METHANE-U** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MINUS BLUE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MI_CLOSED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MI_OPEN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **NEAR-INFRARED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **NONE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ORANGE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PANCAM_L2_753NM** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PANCAM_L8_440NM** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PANCAM_LV_602NM** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PANCAM_R8_880NM** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **RED** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SHORTWAVE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SODIUM-D** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SOLAR UV-22** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **T11** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **T15** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **T20** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **T7** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **T9** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ULTRAVIOLET** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **VIOLET** - begin date: 2009-06-09 - end date: 2019-12-31

- **first_line**

steward: **pds**

name space id: **pds:**

class: **Image_2D_Display**

version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The first_line attribute indicates the line within a source image that corresponds to the first line in a sub-image. Note: For the MPF IMP EDRs, the source image was the complete 256x256 image area within the CCD.**
- **value domain** - conceptual domain:**CD_INTEGER** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **first_line_sample**

steward: **pds**
name space id: **pds**:
class: **Image_2D_Display**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The first_line_sample attribute indicates the sample within a source image that corresponds to the first sample in a sub-image. Note: For the MPF IMP EDRs, the source image was the complete 256x256 image area within the CCD.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **first_standard_parallel**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_PARALLEL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-90.0**
- maximum_value: **90.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **formation_rule**

steward: **pds**
name space id: **pds**:
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The formation rule attribute provides a format for a value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **format_type**

steward: **pds**
name space id: **pds**:
class: **Document_Format**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The format type attribute indicates the digital format used.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **HTML** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **TEXT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PDF-A** - begin date: 2009-06-09 - end date: 2019-12-31

- **full_name**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The full_name attribute provides the complete name for a person performing the role of**

- lexicographer.
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 100

- **full_name**

steward: **pds**
name space id: **pds**:
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The full_name attribute provides the complete name for a person and includes titles and suffixes.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 100

- **gain_mode_id**

steward: **img**
name space id: **img**:
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_ID](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This element identifies the gain state of an instrument. Gain is a constant value which is multiplied with an instrument's output signal to increase or decrease the level of that output.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 100
- permissible value: **100K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **10K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **400K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **40K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HIGH** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LOW** - begin date: 2009-06-09 - end date: 2019-12-31

- **home**

steward: **pds**
name space id: **pds**:
class: **Identification_Area_System**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_HOME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The home attribute indicates where an object resides. It provides sufficient information to be able to access the object.**
- **value domain** - conceptual domain:[CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **horizontal_framelet_offset**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept:[DEC_OFFSET](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain:[CD_REAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Real](#)
- minimum_value: 1.0
- maximum_value: INF

- **identifier**

steward: **pds**
name space id: **pds:**
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_IDENTIFIER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The identifier attribute provides the formal name used to refer to a product. An identifier is unique within the PDS and is used to create the logical identifier. The formation rule depends on the type of product. For example the identifier for a Mission product is the value of mission_name.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **image_id**

steward: **img**
name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**

- **incidence_angle**

steward: **rings**
name space id: **rings:**
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ANGLE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The incidence_angle element provides a measure of the lighting condition at the intercept point. Incidence angle is the angle between the local vertical at the intercept point (surface) and a vector from the intercept point to the sun. The incidence_angle varies from 0 degrees when the intercept point coincides with the sub_solar point to 90 degrees when the intercept point is at the terminator (i.e., in the shadowed or dark portion of the target body). Thus, higher values of incidence_angle indicate the existence of a greater number of surface shadows. Note: In PDS labels for Magellan's altimetry and radiometry products, incidence_angle is defined as the value of the angle between the local vertical and the spacecraft direction, measured at the center of the radiometer footprint at rad_spacecraft_epoch_time.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **180.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **institution_name**

steward: **pds**
name space id: **pds:**
class: **Node**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The institution_name attribute provides the name of the associated institution.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**
- pattern: **[a-zA-Z]{1}[/, _a-zA-Z0-9]***

- **institution_name**

steward: **pds**

name space id: **pds**:
class: **PDS_Affiliate**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The institution_name attribute provides the name of the associated institution.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**
- pattern: **[a-zA-Z]{1}([-/, _a-zA-Z0-9]*)**

- **instrument_host_name**

steward: **pds**
name space id: **pds**:
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The instrument_host_name attribute provides the full name of the platform or facility upon which an instrument or other device is mounted. For example, the host can be a spacecraft, a ground-based telescope, or a laboratory.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **120**

- **instrument_name**

steward: **pds**
name space id: **pds**:
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The instrument name attribute provides a unique name for an instrument.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**

- **invalid_constant**

steward: **pds**
name space id: **pds**:
class: **Special_Constants**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CONSTANT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The invalid constant attribute provides a value that indicates the original value was invalid.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **20**

- **investigation_name**

steward: **pds**
name space id: **pds**:
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The investigation name attribute provides a unique name for an investigation.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **is_enumerated_flag**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FLAG** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The is_enumerated_flag attribute indicates whether an attribute has an enumerated set of permissible values.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **T** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **F** - begin date: 2009-06-09 - end date: 2019-12-31

• **kernel_type**

steward: **pds**
name space id: **pds**:
class: **SPICE_Kernel_Binary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The kernel type attribute identifies the type of SPICE kernel.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **18**
- permissible value: **SPK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PCK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **CK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **EK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DSK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DBK** - begin date: 2009-06-09 - end date: 2019-12-31

• **kernel_type**

steward: **pds**
name space id: **pds**:
class: **SPICE_Kernel_Text**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The kernel type attribute identifies the type of SPICE kernel.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **18**
- permissible value: **LSK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SCLK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PCK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **EK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **IK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **FK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MK** - begin date: 2009-06-09 - end date: 2019-12-31

• **language**

steward: **pds**
name space id: **pds**:
class: **Terminological_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The language attribute indicates the natural language used for a designation and definition.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **English** - begin date: 2009-06-09 - end date: 2019-12-31

- **last_modification_date_time**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The last modification date time attribute gives the most recent date and time that a change was made.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_Time**

- **last_modification_date_time**

steward: **pds**
name space id: **pds**:
class: **Identification_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The last modification date time attribute gives the most recent date and time that a change was made.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_Time**

- **lidvid_reference**

steward: **pds**
name space id: **pds**:
class: **Name_Resolution**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_REFERENCE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The lidvid_reference attribute provides the unique identifier for the product that describes the object.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**
- pattern: **URN:NASA:PDS:{1}[a-zA-Z]{1}([[^]x20][-/ a-zA-Z0-9])(^{*})([0-9]*)([?])([0-9]*)**

- **lidvid_reference**

steward: **pds**
name space id: **pds**:
class: **Reference_Entry_Generic**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_REFERENCE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The lidvid_reference attribute provides the logical_identifier plus a version_id for a product.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**
- pattern: **URN:NASA:PDS:{1}[a-zA-Z]{1}([[^]x20][-/ a-zA-Z0-9])(^{*})([0-9]*)([?])([0-9]*)**

- **lidvid_reference**

steward: **pds**
name space id: **pds**:
class: **Zipped_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_REFERENCE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The lidvid_reference attribute provides the logical_identifier plus a version_id for a product.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- pattern: URN:NASA:PDS:{1}[a-zA-Z]{1}([x20][-/a-zA-Z0-9])(:*)([0-9]*)(.?)([0-9]*)

- **lid_reference**

steward: **pds**
name space id: **pds**:
class: **Bundle_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_REFERENCE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The lid reference attribute provides the logical identifier for a product.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **lid_reference**

steward: **pds**
name space id: **pds**:
class: **Reference_Entry_Generic**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_REFERENCE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The lid reference attribute provides the logical identifier for a product.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **line_display_direction**

steward: **pds**
name space id: **pds**:
class: **Image_2D_Display**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DIRECTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The line_display_direction attribute gives the preferred direction for displaying image lines on a display device. The default value is down, meaning lines are displayed top to bottom. When used, "line_display_direction" must be accompanied by "sample_display_direction", which gives the order of sample display within each line. Image rotation attributes such as TWIST_ANGLE, CELESTIAL_NORTH_CLOCK_ANGLE, and BODY_POLE_CLOCK_ANGLE are defined assuming that the image is displayed in its preferred orientation.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **6**
- permissible value: **DOWN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LEFT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **RIGHT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UP** - begin date: 2009-06-09 - end date: 2019-12-31

- **line_first_pixel**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_PIXEL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **line_last_pixel**

steward: **img**

name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_PIXEL** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **line_projection_offset**

steward: **img**
name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Misc**
- default_unit_id: **pixel**

- **local_attribute_id**

steward: **ops**
name space id: **ops:**
class: **Local_Association**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The local_attribute_id provides the identifier of an attribute and indicates membership in a class.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **local_attribute_id**

steward: **ops**
name space id: **ops:**
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The local_attribute_id provides the identifier of an attribute and indicates membership in a class.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **local_identifier**

steward: **img**
name space id: **img:**
class: **Imaging**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The local identifier element provides a formal name used to refer to the current class. The local identifier must be unique within a label.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **local_identifier**

steward: **pds**
name space id: **pds**:
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LOCAL_IDENTIFIER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The local identifier attribute provides the name of a local object; it is unique within a label. The value of local_identifier should be the class name. If several instances of the same class exist, then a numeric suffix is appended to the class name.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **local_identifier**

steward: **pds**
name space id: **pds**:
class: **Observing_System**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LOCAL_IDENTIFIER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The local identifier attribute provides the name of a local object; it is unique within a label. The value of local_identifier should be the class name. If several instances of the same class exist, then a numeric suffix is appended to the class name.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **local_identifier**

steward: **pds**
name space id: **pds**:
class: **TDO_Structures**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LOCAL_IDENTIFIER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The local identifier attribute provides the name of a local object; it is unique within a label. The value of local_identifier should be the class name. If several instances of the same class exist, then a numeric suffix is appended to the class name.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **local_identifier**

steward: **pds**
name space id: **pds**:
class: **TNDO_Supplemental**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LOCAL_IDENTIFIER](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The local identifier attribute provides the name of a local object; it is unique within a label. The value of local_identifier should be the class name. If several instances of the same class exist, then a numeric suffix is appended to the class name.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **local_mean_solar_time**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_DATE_TIME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)

- description: **The desire to work with solar days, hours, minutes, and seconds of uniform length led to the concept of the fictitious mean Sun or FMS. The FMS is defined as a point that moves on the celestial equator of a planetary body at a constant rate that represents the average mean motion of the Sun over a planetary year. Local mean solar time, or LMST, is defined, by analogy with LTST, as the difference between the areocentric right ascensions of a point on the surface and of the FMS. The difference between LTST and LMST varies over time. The length of a mean solar day is constant and can be computed from the mean motion of the FMS and the rotation rate of a planet. The mean solar day is also called a 'sol'. Mean solar hours, minutes, and seconds are defined in the same way as the true solar units. The acceptable range of values for local_mean_solar_time is '00:00:00.000' to '23:59:59.999'. See also LOCAL_TRUE_SOLAR_TIME. (Definition adapted from [VAUGHAN1995].)**
- value domain - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **8**
- maximum_characters: **12**

- **local_true_solar_time**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- data element - data element concept: **DEC_DATE_TIME** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The LOCAL_TRUE_SOLAR_TIME element describes the local true solar time, or LTST. It is one of two types of solar time used to express the time of day at a point on the surface of a planetary body. LTST is measured relative to the true position of the Sun as seen from a point on the planet's surface. The coordinate system used to define LTST has its origin at the center of the planet. Its Zaxis is the north pole vector (or spin axis) of the planet. The X-axis is chosen to point in the direction of the vernal equinox of the planet's orbit. (The vernal or autumnal equinox vectors are found by searching the planetary ephemeris for those times when the vector from the planet's center to the Sun is perpendicular to the planet's north pole vector. The vernal equinox is the time when the Sun appears to rise above the planet's equator.) Positions of points in this frame can be expressed as a radius and areocentric 'right ascension' and 'declination' angles. The areocentric right ascension angle, or ARA, is measured positive eastward in the equatorial plane from the vernal equinox vector to the intersection of the meridian containing the point with the equator. Similarly, the areocentric declination is the angle between the equatorial plane and the vector to the point. LTST is a function of the difference between the ARAs of the vectors to the Sun and to the point on the planet's surface. Specifically, $LTST = (a(P) - a(TS)) * (24 / 360) + 12$ where, LTST = the local true solar time in true solar hours $a(P) =$ ARA of the point on the planet's surface in deg $a(TS) =$ ARA of the true sun in deg The conversion factor of 24/360 is applied to transform the angular measure in decimal degrees into hours-minutes-seconds of arc. This standard representation divides 360 degrees into 24 hours, each hour into 60 minutes, and each minute into 60 seconds of arc. The hours, minutes, and seconds of arc are called 'true solar' hours, minutes, and seconds when used to measure LTST. The constant offset of 12 hours is added to the difference in ARAs to place local noon (12:00:00 in hours, minutes, seconds) at the point where the Sun is directly overhead; at this time, the ARA of the true sun is the same as that of the surface point so that $a(P) - a(TS) = 0$. The use of 'true solar' time units can be extended to define a true solar day as 24 true solar hours. Due to the eccentricity of planetary orbits and the inclination of orbital planes to equatorial planes (obliquity), the Sun does not move at a uniform rate over the course of a planetary year. Consequently, the number of SI seconds in a true solar day, hour, minute or second is not constant. See also LOCAL_MEAN_SOLAR_TIME. (Definition adapted from [VAUGHAN1995].) This element replaces the older MPF_LOCAL_TIME, which should no longer be used.**
- value domain - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **8**
- maximum_characters: **12**

- **logical_identifier**

steward: **pds**
name space id: **pds**:
class: **Identification_Area**
version: **0.3.0.0.e**

- data element - data element concept: **DEC_LOGICAL_IDENTIFIER** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **A logical identifier identifies the set of all versions of an object. It is an object identifier without a version.**
- value domain - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **map_projection_name**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **(Old map_projection_type). This element identifies the type of projection characteristic of a given map.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **AITOFF** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ALBERS** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **BONNE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **BRIESEMEISTER** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **CYLINDRICAL_EQUAL_AREA** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **EQUIDISTANT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **EQUIRECTANGULAR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **GNOMONIC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HAMMER** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HENDU** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LAMBERT AZIMUTHAL EQUAL AREA** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LAMBERT CONFORMAL** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MERCATOR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **MOLLWEIDE** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **OBLIQUE CYLINDRICAL** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ORTHOGRAPHIC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **POLAR STEREOGRAPHIC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SIMPLE CYLINDRICAL** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SINUSOIDAL** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **STEREOGRAPHIC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **TRANSVERSE MERCATOR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **VAN DER GRINTEN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **WERNER** - begin date: 2009-06-09 - end date: 2019-12-31

- **map_projection_rotation**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ROTATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **180.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **map_resolution**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RESOLUTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Scale**
- default_unit_id: **pixel/deg**

- **map_scale**

steward: **img**

name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_SCALE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Scale**
- default_unit_id: **km/pixel**

- **maximum**

steward: **pds**
name space id: **pds:**
class: **Object_Statistics**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MAXIMUM** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum attribute indicates the highest value in an object.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **maximum_characters**

steward: **pds**
name space id: **pds:**
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum_characters attribute sets an upper (inclusive) bound on the number of characters.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **maximum_latitude**

steward: **img**
name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LATITUDE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-90.0**
- maximum_value: **90.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **maximum_occurrences**

steward: **ops**
name space id: **ops:**
class: **Local_Association**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum occurrences attribute indicates the number of times something may occur and is also called the maximum cardinality.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **maximum_record_length**

steward: **pds**
name space id: **pds:**
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LENGTH** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum record length attribute sets an upper (inclusive) bound on the number of bytes in a record.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **maximum_ring_radius**

steward: **rings**
name space id: **rings:**
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RADIUS** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum_ring_radius element indicates the maximum (outermost) radial location of an area within a planetary ring system. Radii are measured from the center of the planet along the nominal ring plane.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Length**
- default_unit_id: **m**

- **maximum_scaled_value**

steward: **pds**
name space id: **pds:**
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum_scaled_value attribute provides the maximum value after application of "scaling_factor" and "offset".**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **maximum_scaled_value**

steward: **pds**
name space id: **pds:**
class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum_scaled_value attribute provides the maximum value after application of "scaling_factor" and "offset".**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **maximum_value**

steward: **ops**
name space id: **ops:**
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)

- description: **The maximum_value attribute sets an upper (inclusive) bound on a value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **maximum_value**

steward: **pds**
name space id: **pds:**
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The maximum_value attribute sets an upper (inclusive) bound on a value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **max_record_bytes**

steward: **pds**
name space id: **pds:**
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The max record bytes attribute provides the maximum number of bytes that may be contained in a record.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **md5_checksum**

steward: **pds**
name space id: **pds:**
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CHECKSUM** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The md5_checksum attribute is the 32-character hexadecimal number computed for a file using the MD5 algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **32**
- maximum_characters: **32**
- pattern: **([a-f0-9]{32})**

- **md5_checksum**

steward: **pds**
name space id: **pds:**
class: **Manifest_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CHECKSUM** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The md5_checksum attribute is the 32-character hexadecimal number computed for a file using the MD5 algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **32**
- maximum_characters: **32**
- pattern: **([a-f0-9]{32})**

- **md5_checksum**

steward: **pds**

name space id: **pds:**
class: **Object_Statistics**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CHECKSUM** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The md5_checksum attribute is the 32-character hexadecimal number computed for a file using the MD5 algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **32**
- maximum_characters: **32**
- pattern: **{[a-f0-9]{32}}**

- **md5_checksum**

steward: **pds**
name space id: **pds:**
class: **Zipped_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CHECKSUM** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The md5_checksum attribute is the 32-character hexadecimal number computed for a file using the MD5 algorithm.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **32**
- maximum_characters: **32**
- pattern: **{[a-f0-9]{32}}**

- **mean**

steward: **pds**
name space id: **pds:**
class: **Object_Statistics**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MEAN** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The mean attribute (or arithmetic mean) of a list of numbers is the sum of all of the list divided by the number of items in the list.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **INF**

- **median**

steward: **pds**
name space id: **pds:**
class: **Object_Statistics**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MEDIAN** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The median attribute is the number separating the higher half of a list of numbers from the lower half.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **medium_type**

steward: **ops**
name space id: **ops:**
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The medium_type attribute identifies the physical storage medium for a data volume. Examples: CD-ROM, CARTRIDGE TAPE.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**

- minimum_characters: 1
- maximum_characters: 255

- **minimum**

steward: **pds**
name space id: **pds:**
class: **Object_Statistics**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MINIMUM** - administration_record: Beta_DD_0.3.0.0.e
- description: **The minimum attribute indicates the lowest value in an object.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **minimum_characters**

steward: **pds**
name space id: **pds:**
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: Beta_DD_0.3.0.0.e
- description: **The minimum_characters attribute sets a lower (inclusive) bound on the number of characters.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **minimum_latitude**

steward: **img**
name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LATITUDE** - administration_record: Beta_DD_0.3.0.0.e
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Real**
- minimum_value: **-90.0**
- maximum_value: **90.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **minimum_occurrences**

steward: **ops**
name space id: **ops:**
class: **Local_Association**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: Beta_DD_0.3.0.0.e
- description: **The minimum occurrences attribute indicates the number of times something may occur and is also called the minimum cardinality.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **minimum_ring_radius**

steward: **rings**
name space id: **rings:**
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RADIUS** - administration_record: Beta_DD_0.3.0.0.e

- description: **The minimum_ring_radius element indicates the minimum (innermost) radial location of an area within a planetary ring system. Radii are measured from the center of the planet along the nominal ring plane.**
- **value domain** - conceptual domain: [CD_REAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Real](#)
- minimum_value: **0.0**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Length**
- default_unit_id: **m**

- **minimum_scaled_value**

steward: **pds**
name space id: **pds:**
class: **Stream_Delimited_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_VALUE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The minimum_scaled_value attribute provides the minimum value after application of "scaling_factor" and "offset".**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **minimum_scaled_value**

steward: **pds**
name space id: **pds:**
class: **Table_Field_Extended**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_VALUE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The minimum_scaled_value attribute provides the minimum value after application of "scaling_factor" and "offset".**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **minimum_value**

steward: **ops**
name space id: **ops:**
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_VALUE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The minimum_value attribute sets a lower (inclusive) bound on a value.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **minimum_value**

steward: **pds**
name space id: **pds:**
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_VALUE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The minimum_value attribute sets a lower (inclusive) bound on a value.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: **1**
- maximum_characters: **255**

- **missing_constant**

steward: **pds**

name space id: **pds**:
class: **Special_Constants**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CONSTANT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The missing constant attribute provides a value that indicates the original value was missing.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **20**

- **mission_phase_name**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The mission_phase_name element provides the commonly-used identifier of a mission phase.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**

- **name**

steward: **ops**
name space id: **ops**:
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name attribute provides a word or combination of words by which the object is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **61**

- **name**

steward: **ops**
name space id: **ops**:
class: **Local_Class**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name attribute provides a word or combination of words by which the object is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **61**

- **name**

steward: **pds**
name space id: **pds**:
class: **Array_Axis**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name attribute indicates the label or significance of the dimension.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **61**

- **name**

steward: **pds**

name space id: **pds**:
class: **Header**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name attribute provides a word or combination of words by which the object is known.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **61**

- **name**

steward: **pds**
name space id: **pds**:
class: **Name_Resolution**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name attribute provides a title for the object.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **61**

- **name_space_id**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name_space_id attribute identifies the XML Schema namespace container for a logical grouping of data elements.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **name_space_id**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name_space_id attribute identifies the XML Schema namespace container for a logical grouping of data elements.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **name_space_id**

steward: **pds**
name space id: **pds**:
class: **Property_Map**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name_space_id attribute identifies the XML Schema namespace container for a logical grouping of data elements.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **node_id**

steward: **rings**
name space id: **rings:**
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The node_id element provides the node id assigned to a science community node.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **12**
- permissible value: **RINGS** - begin date: 2009-06-09 - end date: 2019-12-31

• **node_name**

steward: **pds**
name space id: **pds:**
class: **Node**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The node_name attribute provides the name of a PDS Node.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **Geosciences** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Imaging** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Navigation_Ancillary_Information_Facility** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Planetary_Atmospheres** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Planetary_Plasma_Interactions** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Planetary_Rings** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Radio_Science** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Small_Bodies** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Engineering** - begin date: 2009-06-09 - end date: 2019-12-31

• **node_name**

steward: **pds**
name space id: **pds:**
class: **PDS_Affiliate**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The node_name attribute provides the name of a PDS Node.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **Engineering** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Geosciences** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Imaging** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Navigation_Ancillary_Information_Facility** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Planetary_Atmospheres** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Planetary_Plasma_Interactions** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Planetary_Rings** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Radio_Science** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Small_Bodies** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **unk** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **HQ** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **National_Space_Science_Data_Center** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **PDS_Management** - begin date: 2009-06-09 - end date: 2019-12-31

• **node_name**

steward: **rings**
name space id: **rings:**
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The node_name element provides the officially recognized name of a PDS Node.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 100
- permissible value: **Planetary_Rings** - begin date: 2009-06-09 - end date: 2019-12-31

- **not_applicable_constant**

steward: **pds**
name space id: **pds:**
class: **Special_Constants**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_CONSTANT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The not applicable constant attribute provides a value that indicates the original value was not applicable.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 20

- **objectives_summary**

steward: **pds**
name space id: **pds:**
class: **Investigation**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_SUMMARY](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The objectives_summary attribute describes the scientific objectives of an investigation**
- **value domain** - conceptual domain: [CD_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Text_Preserved](#)
- minimum_characters: 1
- maximum_characters: 2147483647

- **observing_system_component_type**

steward: **pds**
name space id: **pds:**
class: **Observing_System_Component**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_TYPE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The Observing System Component Type attribute indicates whether an observing system component is a 'source' or 'sensor'.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#) - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: **SENSOR** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SOURCE** - begin date: 2009-06-09 - end date: 2019-12-31

- **observing_system_name**

steward: **pds**
name space id: **pds:**
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The observing system name attribute provides a unique identifier for an observing system.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **occultation_type**

steward: **rings**
name space id: **rings**:
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The occultation type element distinguishes between two types of occultation experiments, stellar and radio. Stellar occultations involve observing a star as a targeted ring or body passes in front, as seen from either a spacecraft or Earth-based observatory. Radio occultations typically involve observing the continuous-wave radio transmissions from a spacecraft as it passes behind the target as seen from a radio telescope on Earth.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **10**
- permissible value: **STELLAR** - begin date: 2009-06-09 - end date: 2019-12-31

- **offset**

steward: **pds**
name space id: **pds**:
class: **Array_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The offset attribute is the displacement from a starting position (in a file, record, etc.). The value of offset starts at zero.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **offset**

steward: **pds**
name space id: **pds**:
class: **Encoded_Byte_Stream**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The offset attribute is the displacement from a starting position (in a file, record, etc.). The value of offset starts at zero.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **offset**

steward: **pds**
name space id: **pds**:
class: **Parsable_Byte_Stream**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The offset attribute is the displacement from a starting position (in a file, record, etc.). The value of offset starts at zero.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **offset**

steward: **pds**
name space id: **pds**:
class: **Table_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The offset attribute is the displacement from a starting position (in a file, record, etc.). The value of**

- **offset starts at zero.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **orbit_number**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The orbit_number element identifies the number of the orbital revolution of the spacecraft around a target body. Note: In PDS Magellan altimetry and radiometry labels, the orbit_number data element refers to the Magellan orbit number corresponding to the following files: ephemeris, altimetry, and radiometry.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **packet_map_mask**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MASK** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_BASE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Numeric_Base2**

- **pattern**

steward: **ops**
name space id: **ops**:
class: **Local_Attribute**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_PATTERN** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The pattern attribute gives the formation rule for a value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **pattern**

steward: **pds**
name space id: **pds**:
class: **Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_PATTERN** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The pattern attribute gives the formation rule for a value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **pds4_merge_flag**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FLAG** - administration_record: [Beta_DD_0.3.0.0.e](#)

- description: **The PDS4 merge flag attribute indicates that the local data dictionary should be merged with the PDS4 data dictionary and accept the PDS as the data dictionary's registration authority. The merge process requires validation that the local data dictionary conforms to PDS data standards.**
- value domain - conceptual domain: **CD_BOOLEAN** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Boolean_TF** - Enumerated
- minimum_characters: 1
- maximum_characters: 1
- permissible value: **T** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **F** - begin date: 2009-06-09 - end date: 2019-12-31

- **phone_book_flag**

steward: **pds**
name space id: **pds**:
class: **PDS_Affiliate**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FLAG** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The phone_book_flag attribute indicates whether or not this person should be included in the phone book.**
- value domain - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: **255**

- **planetary_occultation_flag**

steward: **rings**
name space id: **rings**:
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FLAG** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The planetary_occultation_flag element is a yes-or-no flag hat indicates whether a ring occultation track also intersects the planet.**
- value domain - conceptual domain: **CD_BOOLEAN** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Boolean_TF** - Enumerated
- minimum_characters: 1
- maximum_characters: 1
- permissible value: **n** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **y** - begin date: 2009-06-09 - end date: 2019-12-31

- **planet_day_number**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The planet_day_number element indicates the number of sidereal days (rotation of 360 degrees) elapsed since a reference day (e.g., the day on which a landing vehicle set down). Days are measured in rotations of the planet in question from the reference day (which is day zero). Note: For MPF, the planet_day_number was measured from 1 rather than 0 as the first day of surface operations. Negative numbers referred to pre-surface (cruise) images.**
- value domain - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0**
- maximum_value: **INF**

- **positive_azimuth_direction**

steward: **img**
name space id: **img**:
class: **Az_el_coordinate_system**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DIRECTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The positive_azimuth_direction element provides the direction in which azimuth is measured in positive degrees for an observer on the surface of a body. The azimuth is measured with respect to the elevational reference plane. A value of CLOCKWISE indicates that azimuth increases positively clockwise, while**

- a value of **COUNTERCLOCKWISE** indicates that azimuth increases positively counter-clockwise.
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: 255
- permissible value: **clockwise** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **counterclockwise** - begin date: 2009-06-09 - end date: 2019-12-31

- **positive_elevation_direction**

steward: **img**
name space id: **img**:
class: **Az_el_coordinate_system**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DIRECTION** - administration_record: Beta_DD_0.3.0.0.e
- description: **TBD_description**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: 10
- permissible value: **down** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **nadir** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **up** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **zenith** - begin date: 2009-06-09 - end date: 2019-12-31

- **positive_longitude_direction**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DIRECTION** - administration_record: Beta_DD_0.3.0.0.e
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: 4
- permissible value: **east** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **west** - begin date: 2009-06-09 - end date: 2019-12-31

- **postal_address_text**

steward: **pds**
name space id: **pds**:
class: **PDS_Affiliate**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TEXT** - administration_record: Beta_DD_0.3.0.0.e
- description: **The postal address text attribute provides a mailing address.**
- **value domain** - conceptual domain: **CD_TEXT** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Text_Preserved**
- minimum_characters: 1
- maximum_characters: 2147483647

- **primary_name**

steward: **pds**
name space id: **pds**:
class: **Name_Resolution**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: Beta_DD_0.3.0.0.e
- description: **The primary_name attribute provides the name that anchors a list of additional names for an object.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **process_level_id**

steward: **pds**
name space id: **pds**:
class: **Collection_Data**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The processing level id attribute indicates whether data are raw, reduced (partly processed, but not calibrated), calibrated, or derived (processed beyond calibration, often irreversibly)**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **RAW** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **RDC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **CLB** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DRV** - begin date: 2009-06-09 - end date: 2019-12-31

- **producer_full_name**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The producer_full_name attribute provides the full_name of the individual mainly responsible for the production of a data set. See also This individual does not have to be registered with the PDS.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **product_class**

steward: **pds**
name space id: **pds**:
class: **Identification_Area**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The product_class attribute identifies the generic class of the product. For example, the product Product_Table_Character would have product_class=Product_Table_Character.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**

- **product_class**

steward: **pds**
name space id: **pds**:
class: **Identification_Area_System**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The product_class attribute identifies the generic class of the product. For example, the product Product_Table_Character would have product_class=Product_Table_Character.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**

- **product_subclass**

steward: **pds**
name space id: **pds**:
class: **Identification_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The product_subclass attribute provides the name of a subclass under a product_class. For example, User_Manual is a subclass of Product_Document.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **product_subclass**

steward: **pds**
name space id: **pds:**
class: **Identification_Area_Document**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The product_subclass attribute provides the name of a subclass under a product_class. For example, User_Manual is a subclass of Product_Document.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ERRATA** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **AAREADME** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **SIS** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Programmers_Manual** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Users_Manual** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **example.DPH** - begin date: 2009-06-09 - end date: 2019-12-31

- **property_name**

steward: **pds**
name space id: **pds:**
class: **Property_Map_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The property name attribute provides a word or a combination of words by which a property is known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **property_value**

steward: **pds**
name space id: **pds:**
class: **Property_Map_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The property value attribute provides the value assigned to a property.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **publication_date**

steward: **ops**
name space id: **ops:**
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The publication_date attribute provides the date when a published item, such as a document or a physical archival volume, was issued.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**

- maximum_characters: 255

- **publication_date**

steward: **pds**
name space id: **pds**:
class: **Document_Desc**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The publication_date attribute provides the date when a published item, such as a document or a physical archival volume, was issued.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_YMD**
- minimum_characters: 1
- maximum_characters: 10

- **radial_resolution**

steward: **rings**
name space id: **rings**:
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_RESOLUTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The radial_resolution element indicates the nominal radial distance over which changes in ring properties can be detected within a data product. Note: this value may be larger than the radial_sampling_interval value, since many data products are over-sampled.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: 0.0
- maximum_value: INF
- unit_of_measure_name: **UnitOfMeasure_Length**
- default_unit_id: m

- **received_packets**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: 0
- maximum_value: 2147483647

- **records**

steward: **pds**
name space id: **pds**:
class: **File**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The records attribute provides a count of records.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: 1
- maximum_value: 2147483647

- **records**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The records attribute provides a count of records.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: 1
- maximum_value: **2147483647**

- **records**

steward: **pds**
name space id: **pds**:
class: **Table_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The records attribute provides a count of records.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: 1
- maximum_value: **2147483647**

- **record_bytes**

steward: **pds**
name space id: **pds**:
class: **Table_Base**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The record bytes attribute provides a count of the bytes in a record.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **record_delimiter**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DELIMITER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The record delimiter attribute provides the character or characters used to indicate the end of a record.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: **255**
- permissible value: **0x0A** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **0x0D** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **0x0D_0x0A** - begin date: 2009-06-09 - end date: 2019-12-31

- **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Bundle_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: **255**
- permissible value: **has_miscellaneous_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_browse_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_calibration_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_data_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_document_collection** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **has_geometry_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_spice_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_xml_schema_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_member_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_context_collection** - begin date: 2009-06-09 - end date: 2019-12-31

- **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Collection_Reference_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_update_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_associated_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_investigation_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_file_manifest_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_node_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_publication_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_target_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_file_manifest** - begin date: 2009-06-09 - end date: 2019-12-31

- **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Context_Reference_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_instrument_host** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_instrument** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: ***has_investigation *** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_node** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_personnel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_publication** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_resource** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_target** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_association** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_data_producer** - begin date: 2009-06-09 - end date: 2019-12-31

- **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Inventory_LIDVID_Primary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_member_LIDVID_Primary** - begin date: 2009-06-09 - end date: 2019-12-31

- **reference_association_type**

steward: **pds**
name space id: **pds**:

class: **Inventory_LIDVID_Secondary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_member_LIDVID_Secondary** - begin date: 2009-06-09 - end date: 2019-12-31

• **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Inventory_LID_Secondary**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_member_LID_Secondary** - begin date: 2009-06-09 - end date: 2019-12-31

• **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Manifest**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_member** - begin date: 2009-06-09 - end date: 2019-12-31

• **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Observing_System_Reference_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_instrument_host** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_instrument** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_association** - begin date: 2009-06-09 - end date: 2019-12-31

• **reference_association_type**

steward: **pds**
name space id: **pds**:
class: **Product_Reference_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**

- permissible value: **has_browse** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_calibration** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_publication** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_geometry** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_personnel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_spice** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_target** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_thumbnail** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **curated_by_node** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_association** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_document** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_investigation** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_node** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_instrument** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_instrument_host** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_primary_collection** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_resource** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **has_primary_product** - begin date: 2009-06-09 - end date: 2019-12-31

• reference_association_type

steward: **pds**
name space id: **pds**:
class: **Reference_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **has_association** - begin date: 2009-06-09 - end date: 2019-12-31

• reference_association_type

steward: **pds**
name space id: **pds**:
class: **Reference_Entry_Generic**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• reference_association_type

steward: **pds**
name space id: **pds**:
class: **Zipped_Member_Entry**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference association type attribute provides the name of the association used in a reference.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **manifest_product** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **contained_product** - begin date: 2009-06-09 - end date: 2019-12-31

• reference_coordinate_system_name

steward: **img**
name space id: **img**:
class: **Az_el_coordinate_system**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_NAME](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference_coordinate_system_name provides the full name of the reference coordinate system for the group in which the keyword occurs. All vectors and positions relating to 3-D space within the enclosing class are expressed using this reference coordinate system. In non-unique coordinate system (such as 'SITE' for rover missions), which have multiple instances using the same name, reference_coordinate_system_index is also required to completely identify the reference coordinate system.**
- **value domain** - conceptual domain: [CD_SHORT_STRING](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Short_String_Collapsed](#)
- minimum_characters: 1
- maximum_characters: 255

- **reference_latitude**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LATITUDE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: [CD_REAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Real](#)
- minimum_value: **-90.0**
- maximum_value: **90.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **reference_longitude**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_LONGITUDE](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: [CD_REAL](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Real](#)
- minimum_value: **-180.0**
- maximum_value: **360.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **reference_text**

steward: **pds**
name space id: **pds**:
class: **Bibliographic_Reference**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference_text attribute provides a complete bibliographic citation for a published work.**
- **value domain** - conceptual domain: [CD_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Text_Preserved](#)
- minimum_characters: 1
- maximum_characters: **2147483647**

- **reference_text**

steward: **pds**
name space id: **pds**:
class: **Reference**
version: **0.3.0.0.e**

- **data element** - data element concept: [DEC_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The reference_text attribute provides a complete bibliographic citation for a published work.**
- **value domain** - conceptual domain: [CD_TEXT](#) - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: [ASCII_Text_Preserved](#)
- minimum_characters: 1
- maximum_characters: **2147483647**

- **registered_by**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The registered by attribute provides the name of the person or organization that registered the object.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **registration_authority_id**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The registration_authority_id attribute provides the name of the person or organization that registered the object.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **registration_authority_id**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The registration_authority_id attribute provides the name of the person or organization that registered the object.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **registration_date**

steward: **ops**
name space id: **ops**:
class: **Personnel**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The registration_date attribute provides the date of registration within the PDS system.**
- **value domain** - conceptual domain:**CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_YMD**
- minimum_characters: **1**
- maximum_characters: **10**

- **repetitions**

steward: **pds**
name space id: **pds**:
class: **Stream_Delimited_Grouped_Sequence**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The repetitions attribute indicates the number of occurrences.**
- **value domain** - conceptual domain:**CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**

- maximum_value: 2147483647

- **repetitions**

steward: pds
name space id: pds:
class: **Table_Binary_Grouped_Sequence**
version: 0.3.0.0.e

- **data element** - data element concept: **DEC_COUNT** - administration_record: Beta_DD_0.3.0.0.e
- description: **The repetitions attribute indicates the number of occurrences.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Integer**
- minimum_value: 1
- maximum_value: 2147483647

- **repetitions**

steward: pds
name space id: pds:
class: **Table_Character_Grouped_Sequence**
version: 0.3.0.0.e

- **data element** - data element concept: **DEC_COUNT** - administration_record: Beta_DD_0.3.0.0.e
- description: **The repetitions attribute indicates the number of occurrences.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Integer**
- minimum_value: 1
- maximum_value: 2147483647

- **revision_id**

steward: pds
name space id: pds:
class: **Document_Desc**
version: 0.3.0.0.e

- **data element** - data element concept: **DEC_ID** - administration_record: Beta_DD_0.3.0.0.e
- description: **The revision_id attribute indicates the revision level of a document, as distinct from the version_id, which tracks revisions to the files and label that constitute the document product.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **ring_event_start_time**

steward: rings
name space id: rings:
class: **Rings_Prod_Info**
version: 0.3.0.0.e

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: Beta_DD_0.3.0.0.e
- description: **The ring_event_start_time element indicates the starting instant of a data product as measured at the ring plane. This element differs from the observation start time because it allows for light travel time.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Date_Time**

- **ring_event_stop_time**

steward: rings
name space id: rings:
class: **Rings_Prod_Info**
version: 0.3.0.0.e

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: Beta_DD_0.3.0.0.e
- description: **The ring_event_stop_time element indicates the stopping instant of a data product as measured at the ring plane. This element differs from the observation stop time because it allows for light travel time.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Date_Time**

- **ring_occultation_direction**

steward: **rings**

name space id: **rings:**

class: **Rings_Prod_Info**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DIRECTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The ring_occultation_direction element indicates the radial direction of a ring occultation track.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **20**
- permissible value: **both** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **egress** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ingress** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **multiple** - begin date: 2009-06-09 - end date: 2019-12-31

- **role**

steward: **pds**

name space id: **pds:**

class: **Name_Resolution**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ROLE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The role attribute indicates the role performed by this class.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **PRIMARY** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ALTERNATE** - begin date: 2009-06-09 - end date: 2019-12-31

- **sample_bit_mask**

steward: **pds**

name space id: **pds:**

class: **Object_Statistics**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_MASK** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The sample_bit_mask attribute identifies the active bits in a sample. Note: In the PDS, the domain of sample_bit_mask is dependent upon the currently-described value in the sample_bits attribute and only applies to integer values. For an 8-bit sample where all bits are active the sample_bit_mask would be 2#1111111#.**
- **value domain** - conceptual domain: **CD_BASE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Numeric_Base2**

- **sample_display_direction**

steward: **pds**

name space id: **pds:**

class: **Image_2D_Display**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DIRECTION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The sample_display_direction attribute is the preferred orientation of samples within a line for viewing on a display device. The default is right, meaning samples are viewed from left to right on the display. "sample_display_direction" must be used with "line_display_direction". Image rotation attributes such as TWIST_ANGLE, CELESTIAL_NORTH_CLOCK_ANGLE, and BODY_POLE_CLOCK_ANGLE are defined under the assumption that the image is displayed in its preferred orientation.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **6**
- permissible value: **DOWN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **LEFT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **RIGHT** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UP** - begin date: 2009-06-09 - end date: 2019-12-31

- **sample_first_pixel**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_PIXEL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain:**CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **sample_last_pixel**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_PIXEL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain:**CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **sample_projection_offset**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain:**CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**
- unit_of_measure_name: **UnitOfMeasure_Misc**
- default_unit_id: **pixel**

- **saturated_constant**

steward: **pds**
name space id: **pds**:
class: **Special_Constants**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_CONSTANT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The saturated constant attribute provides a value that indicates the original value was saturated.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **scaling_factor**

steward: **pds**
name space id: **pds**:
class: **Array_Element**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_FACTOR** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The scaling factor attribute is the scaling factor to be applied to each stored value in order to recover the original observation value. The observed value (Ov) is calculated from the stored value (Sv) thus: $Ov = (Sv * scaling_factor) + value_offset$.**
- **value domain** - conceptual domain:**CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**

- minimum_value: **-INF**
- maximum_value: **INF**

- **scan_mode_id**

steward: **img**
name space id: **img:**
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This element identifies one of several internal rates for data acquisition by an instrument.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **.055** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **4.0** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **epf** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **long** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **short** - begin date: 2009-06-09 - end date: 2019-12-31

- **second_standard_parallel**

steward: **img**
name space id: **img:**
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_PARALLEL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-90.0**
- maximum_value: **90.0**
- unit_of_measure_name: **UnitOfMeasure_Angle**
- default_unit_id: **deg**

- **sequence_number**

steward: **pds**
name space id: **pds:**
class: **Array_Axis**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The sequence number attribute provides a number that is used to order elements in an array.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **-2147483648**
- maximum_value: **2147483647**

- **shutter_mode_id**

steward: **img**
name space id: **img:**
class: **Camera_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **This element identifies the state of an imaging instrument's shutter during image acquisition. Note: the instrument shutter mode affects the radiometric properties of the camera.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **100**
- permissible value: **BODARK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **BOSIM** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **BSIMAN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **NADARK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **NAONLY** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **WADARK** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **WAONLY** - begin date: 2009-06-09 - end date: 2019-12-31

- **solar_longitude**

steward: **pds**
name space id: **pds:**
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LONGITUDE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The solar_longitude element provides the value of the angle between the body_Sun line at the time of interest and the body_Sun line at the vernal equinox. This provides a measure of season on a target body, with values of 0 to 90 degrees representing northern spring, 90 to 180 degrees representing northern summer, 180 to 270 degrees representing northern autumn and 270 to 360 degrees representing northern winter. For IRAS: the geocentric ecliptic longitude (B1950) of the Sun at the start of a scan.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0**
- maximum_value: **INF**

- **sort_name**

steward: **ops**
name space id: **ops:**
class: **Personnel**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The sort name attribute provides a string to be used in ordering. For people, the last name (surname) is typically first, followed by a comma and then other names.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**
- pattern: **[a-zA-Z]{1}([- ,_a-zA-Z0-9]*)**

- **spacecraft_clock_cnt_partition**

steward: **pds**
name space id: **pds:**
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The spacecraft_clock_cnt_partition element indicates the clock partition active for the SPACECRAFT_CLOCK_START_COUNT and SPACECRAFT_CLOCK_STOP_COUNT elements.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **spacecraft_clock_start_count**

steward: **pds**
name space id: **pds:**
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The spacecraft clock start count attribute provides the value of the spacecraft clock at the beginning of a time period of interest.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **30**

- **spacecraft_clock_stop_count**

steward: **pds**

name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The spacecraft clock stop count attribute provides the value of the spacecraft clock at the end of a time period of interest.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **30**

- **spice_file_name**

steward: **img**
name space id: **img**:
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **180**

- **standard_deviation**

steward: **pds**
name space id: **pds**:
class: **Object_Statistics**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DEVIATION** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The standard deviation attribute gives the standard deviation of the values.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **0.0**
- maximum_value: **INF**

- **starting_point_identifier**

steward: **pds**
name space id: **pds**:
class: **Document_Format**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_IDENTIFIER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The starting point identifier attribute provides the local_identifier of the file to be accessed first.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **start_bit**

steward: **pds**
name space id: **pds**:
class: **Table_Binary_Grouped_Bit_Field**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_BIT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The start bit attribute provides the position of the first bit within an ordered sequence of bits.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **1**
- maximum_value: **2147483647**

- **start_date**

steward: **pds**
name space id: **pds**:
class: **Investigation**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The start_date attribute provides the date when an activity began.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_YMD**
- minimum_characters: **1**
- maximum_characters: **10**

• **start_date_time**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The start_date_time attribute provides the date and time at the beginning of a time interval of interest.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **start_date_time**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The start_date_time attribute provides the date and time at the beginning of a time interval of interest.**
- **value domain** - conceptual domain: **CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_Time**

• **star_name**

steward: **rings**
name space id: **rings**:
class: **Rings_Prod_Info**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The star_name element provides the identifying name of star, including the catalog name if necessary. Examples include 'sigma Sgr' and 'SAO 123456' (for star number 123456 in the Smithsonian Astrophysical Observatory catalog).**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **40**

• **steward_id**

steward: **ops**
name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The steward_id attribute gives the name of the person or organization managing a set of registered attributes and classes.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **steward_id**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The steward attribute indicates the person or organization who manages a set of registered attributes and classes.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **stop_date**

steward: **pds**
name space id: **pds**:
class: **Investigation**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DATE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The stop_date attribute provides the date when an activity ended.**
- **value domain** - conceptual domain:**CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_YMD**
- minimum_characters: **1**
- maximum_characters: **10**

- **stop_date_time**

steward: **ops**
name space id: **ops**:
class: **Data_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The stop_date_time attribute provides the date and time at the end of a time interval of interest.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **stop_date_time**

steward: **pds**
name space id: **pds**:
class: **Observation_Area**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_DATE_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The stop_date_time attribute provides the date and time at the end of a time interval of interest.**
- **value domain** - conceptual domain:**CD_TIME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Date_Time**

- **submitter_id**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The submitter_id attribute identifies the individual or organization that submitted the item.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **target_name**

steward: **pds**
name space id: **pds:**
class: **Subject_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The target name attribute provides a name by which the target is formally known.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **120**

• **telemetry_provider_id**

steward: **img**
name space id: **img:**
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **ssw_mer_dp** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ttacs** - begin date: 2009-06-09 - end date: 2019-12-31

• **telemetry_source_name**

steward: **img**
name space id: **img:**
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **100**

• **telemetry_source_type**

steward: **img**
name space id: **img:**
class: **Telemetry_Parameters**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **data_product** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sfd** - begin date: 2009-06-09 - end date: 2019-12-31

• **telephone_number**

steward: **pds**
name space id: **pds:**
class: **PDS_Affiliate**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NUMBER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The telephone_number attribute provides a telephone number in international notation in compliance with the E.164 telephone number format recommendation.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**

- maximum_characters: 30
- pattern: **(+{1}[0-9]{2})?([0-9]{3} [0-9]{3} [0-9]{4}))**

- **title**

steward: **pds**
name space id: **pds:**
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TITLE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name given to the resource. Typically, a Title will be a name by which the resource is formally known. - Dublin Core**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **title**

steward: **pds**
name space id: **pds:**
class: **Identification_Area**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TITLE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name given to the resource. Typically, a Title will be a name by which the resource is formally known. - Dublin Core - The title is used to refer to an object in a version independent manner.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **UTF8_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **title**

steward: **pds**
name space id: **pds:**
class: **Observing_System**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_TITLE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The name given to the resource. Typically, a Title will be a name by which the resource is formally known. - Dublin Core**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **UTF8_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **unit**

steward: **pds**
name space id: **pds:**
class: **Array_Axis**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_UNIT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The unit attribute indicates unit of measurement.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: 1
- maximum_characters: 40
- permissible value: **mol** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcmin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcsec** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mrad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad/s** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **m**2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hz** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **AU** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Angstrom** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **micrometer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **nm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **g** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **none** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **airmass** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Pa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **bar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hPa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mbar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **W*m**-2*sr**-1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **counts/bin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kilobits/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **electron/DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel/deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **byte** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **degC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **microseconds** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **min** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ms** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **yr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **V** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mV** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**3** - begin date: 2009-06-09 - end date: 2019-12-31

- **unit**

steward: **pds**

name space id: **pds:**

class: **Array_Element**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_UNIT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The unit attribute indicates unit of measurement.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **40**
- permissible value: **mol** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcmin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **arcsec** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mrad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **deg/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **rad/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**2** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hz** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **AU** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **Angstrom** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **micrometer** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **nm** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **g** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **none** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **airmass** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **Pa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **bar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **hPa** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mbar** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **W*m**-2*sr**-1** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **counts/bin** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **kilobits/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **electron/DN** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mm/pixel** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **pixel/deg** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **sr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **byte** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **K** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **degC** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **day** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **microseconds** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **min** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **ms** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **yr** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **cm/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **km/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m/s** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **V** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **mV** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **L** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **m**3** - begin date: 2009-06-09 - end date: 2019-12-31

- **unit_of_measure_name**

steward: **pds**

name space id: **pds:**

class: **Value_Domain**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The unit_of_measure_name attribute indicates the units in which a value is given.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **unit_of_measure_type**

steward: **ops**

name space id: **ops:**

class: **Local_Attribute**

version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_TYPE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The unit of measure type element indicates the named grouping of units to be used for this attribute.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed** - Enumerated
- minimum_characters: **1**
- maximum_characters: **255**
- permissible value: **UnitOfMeasure_AmountOfSubstance** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Angle** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **UnitOfMeasure_Angular_Velocity** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Area** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Frequency** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Length** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Mass** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Misc** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_None** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_OpticalPathLength** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Pressure** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Radiance** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Rates** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Scale** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Solid_Angle** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Storage** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Temperature** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Time** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Velocity** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Voltage** - begin date: 2009-06-09 - end date: 2019-12-31
- permissible value: **UnitOfMeasure_Volume** - begin date: 2009-06-09 - end date: 2019-12-31

- **unknown_constant**

steward: **pds**
name space id: **pds:**
class: **Special_Constants**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_CONSTANT** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The unknown constant attribute provides a value that indicates the original value was unknown.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **20**

- **url**

steward: **pds**
name space id: **pds:**
class: **Bibliographic_Reference**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_URL** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The URL attribute (Uniform Resource Locator) is a Uniform Resource Identifier (URI) that specifies where an identified resource is available and the mechanism for retrieving it.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **url**

steward: **pds**
name space id: **pds:**
class: **Resource**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_URL** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The URL attribute (Uniform Resource Locator) is a Uniform Resource Identifier (URI) that specifies where an identified resource is available and the mechanism for retrieving it.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **value**

steward: **ops**
name space id: **ops:**
class: **Local_Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The value attribute is an expression of a value meaning allowed in a specific value domain. A permissible value for axes is 2".**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **value**

steward: **pds**
name space id: **pds:**
class: **Permissible_Value**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The value attribute is an expression of a value meaning allowed in a specific value domain. A permissible value for axes is 2".**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **value_meaning**

steward: **ops**
name space id: **ops:**
class: **Local_Value_Domain**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The value_meaning attribute is the meaning or semantic content of a permissible value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **value_meaning**

steward: **pds**
name space id: **pds:**
class: **Permissible_Value**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The value_meaning attribute is the meaning or semantic content of a permissible value.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **value_offset**

steward: **pds**
name space id: **pds:**
class: **Array_Element**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The value offset attribute is the fixed value to be added to each real value stored in order to recover the original observation value. The observed value (Ov) is calculated from the stored value (Sv) thus: $Ov = (Sv * scaling_factor) + value_offset$.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Integer**
- minimum_value: **-2147483648**
- maximum_value: **2147483647**

- **version_id**

steward: **ops**

name space id: **ops**:
class: **Local_DD**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The version id attribute gives the version.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**
- pattern: **([-_a-zA-Z0-9]*)**

- **version_id**

steward: **pds**
name space id: **pds**:
class: **Attribute_Definition**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The version id attribute gives the version.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **version_id**

steward: **pds**
name space id: **pds**:
class: **Identification_Area**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The version id attribute gives the version.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**
- pattern: **([-_a-zA-Z0-9]*)**

- **vertical_framelet_offset**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_OFFSET** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Real**
- minimum_value: **1.0**
- maximum_value: **INF**

- **volumes**

steward: **ops**
name space id: **ops**:
class: **Volume_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_COUNT** - administration_record: **Beta_DD_0.3.0.0.e**
- description: **The volumes element provides the number of physical data volumes contained in a volume set.**
- **value domain** - conceptual domain: **CD_INTEGER** - administration_record: **Beta_DD_0.3.0.0.e**
- data_type: **ASCII_Integer**
- minimum_value: **0**
- maximum_value: **2147483647**

- **volume_de_fullname**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_de_fullname attribute provide the full name of the data engineer.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **volume_format**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_FORMAT** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_format attribute identifies the logical format used in writing a data volume.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **volume_id**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_id attribute provides a unique identifier for a data volume. Example: MG_1001.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **volume_name**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_name attribute contains the name of a data volume.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

• **volume_series_name**

steward: **ops**
name space id: **ops**:
class: **Volume_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_series_name element provides a full, formal name that describes a broad categorization of data products or data sets related to a planetary body or a research campaign (e.g. International Halley Watch). A volume series consists of one or more volume sets that represent data from one or more missions or campaigns.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **volume_set_id**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_set_id attribute identifies a data volume or a set of volumes. Volume sets are normally considered as a single orderable entity. Examples: USA_NASA_PDS_MG_1001, USA_NASA_PDS_GR_0001_TO_GR_0009**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **volume_set_id**

steward: **ops**
name space id: **ops**:
class: **Volume_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_set_id attribute identifies a data volume or a set of volumes. Volume sets are normally considered as a single orderable entity. Examples: USA_NASA_PDS_MG_1001, USA_NASA_PDS_GR_0001_TO_GR_0009**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **volume_set_name**

steward: **ops**
name space id: **ops**:
class: **Volume_Set_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_NAME** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_set_name element provides the full, formal name of one or more data volumes containing a single data set or a collection of related data sets. Volume sets are normally considered as a single orderable entity.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **volume_size**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_SIZE** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_size attribute provide the number of bytes in the volume.**
- **value domain** - conceptual domain:**CD_SHORT_STRING** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: **1**
- maximum_characters: **255**

- **volume_version_id**

steward: **ops**
name space id: **ops**:
class: **Volume_PDS3**
version: **0.3.0.0.e**

- **data element** - data element concept:**DEC_ID** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **The volume_version_id attribute identifies the version of a data volume. All original volumes**

- **should use a volume_version_id** of 'Version 1'.
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **western_most_longitude**

steward: **img**
name space id: **img**:
class: **Image_Map_Projection**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_LONGITUDE** - administration_record: Beta_DD_0.3.0.0.e
- description: **This attribute is used in the image map projection. Under review.**
- **value domain** - conceptual domain: **CD_SHORT_STRING** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Short_String_Collapsed**
- minimum_characters: 1
- maximum_characters: 255

- **x**

steward: **img**
name space id: **img**:
class: **Quaternion**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: Beta_DD_0.3.0.0.e
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **x**

steward: **img**
name space id: **img**:
class: **Vector**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: Beta_DD_0.3.0.0.e
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **y**

steward: **img**
name space id: **img**:
class: **Quaternion**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: Beta_DD_0.3.0.0.e
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: Beta_DD_0.3.0.0.e
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **y**

steward: **img**
name space id: **img**:
class: **Vector**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: Beta_DD_0.3.0.0.e

- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **z**

steward: **img**
name space id: **img**:
class: **Quaternion**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **z**

steward: **img**
name space id: **img**:
class: **Vector**
version: **0.3.0.0.e**

- **data element** - data element concept: **DEC_VALUE2** - administration_record: [Beta_DD_0.3.0.0.e](#)
- description: **xxx TBD E. Rye xxx**
- **value domain** - conceptual domain: **CD_REAL** - administration_record: [Beta_DD_0.3.0.0.e](#)
- data_type: **ASCII_Real**
- minimum_value: **-INF**
- maximum_value: **INF**

- **CD_BOOLEAN**

version_identifier: **0.3.0.0.e**
definition: **The values true and false, such that true is not equal to false. - ISO/IEC 11404**

- **CD_CHARACTER**

version_identifier: **0.3.0.0.e**
definition: **The value space of a character datatype comprises exactly the members of the character-sets identified by the repertoire-list. - ISO/IEC 11404**

- **CD_COMPLEX**

version_identifier: **0.3.0.0.e**
definition: **The value space of the mathematical complex type is the field which is the solution space of all polynomial equations having real coefficients. The value space of a computational complex datatype shall be a subset of the mathematical complex type, characterized by two parametric values, radix and factor, which, taken together, describe the precision to which values of the datatype are distinguishable. - ISO/IEC 11404**

- **CD_ENUMERATED**

version_identifier: **0.3.0.0.e**
definition: **The value space of an enumerated datatype is the set comprising exactly the named values in the enumerated-value-list, each of which is designated by a unique enumerated-literal. The order of these values is given by the sequence of their occurrence in the enumerated-value-list, which shall be referred to as the naming sequence of the enumerated datatype. - ISO/IEC 11404**

- **CD_INTEGER**

version_identifier: **0.3.0.0.e**
definition: **Mathematically, the infinite ring produced from the additive identity (0) and the multiplicative identity (1) by requiring $0 = 1$ and $\text{Add}(x,1) = y$ for any $y = x + 1$. That is: ..., -2, -1, 0, 1, 2, ... (a denumerably infinite list). - ISO/IEC 11404**

- **CD_OCTET**

version_identifier: 0.3.0.0.e

definition: Each value of datatype octet is a code, represented by a non-negative integer value in the range [0, 255]. - ISO/IEC 11404

- **CD_REAL**

version_identifier: 0.3.0.0.e

definition: The value space of the mathematical real type comprises all values which are the limits of convergent sequences of rational numbers. The value space of a computational real datatype shall be a subset of the mathematical real type. - ISO/IEC 11404

- **CD_SCALED**

version_identifier: 0.3.0.0.e

definition: The value space of a scaled datatype is that set of values of the rational datatype which are expressible as a value of datatype Integer divided by radix raised to the power factor. - ISO/IEC 11404

- **CD_TIME**

version_identifier: 0.3.0.0.e

definition: The value-space of a date-and-time datatype is the denumerably infinite set of all possible points in time with the resolution (time-unit, radix, factor). The time-literal denotes the date-and-time value specified by the characterstring as interpreted under ISO 8601. - ISO/IEC 11404

- **CD_TIME_INTERVAL**

version_identifier: 0.3.0.0.e

definition: All values which are integral multiples of one radix [^] (-factor) unit of the specified timeunit. - ISO/IEC 11404

- **CD_VOID**

version_identifier: 0.3.0.0.e

definition: Conceptually, the value space of the void datatype is empty, but a single nominal value is necessary to perform the "presence required" function. - ISO/IEC 11404

- **DEC_COUNT**

version_identifier: 0.3.0.0.e

definition: A numeric value indicating a current total or tally.

- **DEC_DATE**

version_identifier: 0.3.0.0.e

definition: A representation of time in which the smallest unit of measure is a day.

- **DEC_DATE_TIME**

version_identifier: 0.3.0.0.e

definition: A value that measures the point of occurrence of an event expressed in date and time in a standard form.

- **DEC_DESCRIPTION**

version_identifier: 0.3.0.0.e

definition: A free-form, unlimited-length character string that provides a description of the item identified.

- **DEC_DIRECTION**

version_identifier: 0.3.0.0.e

definition: TBD

- **DEC_FLAG**

version_identifier: 0.3.0.0.e

definition: A boolean condition indicator, limited to two states.

- **DEC_FORMAT**

version_identifier: **0.3.0.0.e**

definition: **A specified or predetermined arrangement of data within a file or on a storage medium.**

- **DEC_GROUP**

version_identifier: **0.3.0.0.e**

definition: **Names a collection or aggregation of elements. Example: ALT FLAG GROUP**

- **DEC_GUID**

version_identifier: **0.3.0.0.e**

definition: **A globally unique, immutable, and opaque product identifier.**

- **DEC_ID**

version_identifier: **0.3.0.0.e**

definition: **A shorthand alphanumeric identifier.**

- **DEC_IDENTIFIER**

version_identifier: **0.3.0.0.e**

definition: **A shorthand alphanumeric identifier.**

- **DEC_LOCAL_IDENTIFIER**

version_identifier: **0.3.0.0.e**

definition: **An identifier unique within a product label. When appended to the LID, it provides a global identifier for a component of a product.**

- **DEC_LOGICAL_IDENTIFIER**

version_identifier: **0.3.0.0.e**

definition: **A unique product identifier without the version. It identifies the set of all versions of a product.**

- **DEC_MASK**

version_identifier: **0.3.0.0.e**

definition: **An unsigned numeric value representing the bit positions within a value.**

- **DEC_NAME**

version_identifier: **0.3.0.0.e**

definition: **A literal value representing the common term used to identify an element.**

- **DEC_NOTE**

version_identifier: **0.3.0.0.e**

definition: **A textual expression of opinion, an observation, or a criticism; a remark.**

- **DEC_NUMBER**

version_identifier: **0.3.0.0.e**

definition: **A quantity.**

- **DEC_QUATERNION**

version_identifier: **0.3.0.0.e**

definition: **TBD**

- **DEC_RANGE**

version_identifier: **0.3.0.0.e**

definition: **Numeric values which identify the starting and stopping points of an interval.**

- **DEC_RATIO**

version_identifier: **0.3.0.0.e**

definition: **The relation between two quantities with respect to the number of times the first contains the second.**

- **DEC_SEQUENCE**

version_identifier: **0.3.0.0.e**

definition: **1) an arrangement of items in accordance with some criterion that defines their spacewise or timewise succession; 2) an orderly progression of items or operations in accordance with some rule, such as alphabetical or numerical order.**

- **DEC_SET**

version_identifier: **0.3.0.0.e**

definition: **A collection of items having some feature in common or which bear a certain relation to one another, e.g. all even numbers.**

- **DEC_SUMMARY**

version_identifier: **0.3.0.0.e**

definition: **An abridged description.**

- **DEC_TEXT**

version_identifier: **0.3.0.0.e**

definition: **A free-form, unlimited length character string.**

- **DEC_TYPE**

version_identifier: **0.3.0.0.e**

definition: **A literal that indicates membership in a predefined class.**

- **DEC_UNIT**

version_identifier: **0.3.0.0.e**

definition: **A determinate quantity adopted as a standard of measurement.**

- **DEC_VALUE**

version_identifier: **0.3.0.0.e**

definition: **The default class word for data element names not terminated with a class word.**

- **DEC_VECTOR**

version_identifier: **0.3.0.0.e**

definition: **A quantity that has both length and direction which are independent of both the units and of the coordinate system in which each are measured. The vector direction is uniquely defined in terms of an ordered set of components with respect to the particular coordinate system for which those components have been defined.**

- **Administration Record: Beta_DD_0.3.0.0.e**

administration_record: [Beta_DD_0.3.0.0.e](#)

version_identifier: **0.3.0.0.e**

steward: [Steward_PDS](#)

submitter: [Submitter_PDS](#)

registered_by: [RA_0001_NASA_PDS_1](#)

registration_authority_identifier: [0001_NASA_PDS_1](#)

- **Administration Record: Beta_DD_0.3.0.0.e**

administration_record: [Beta_DD_0.3.0.0.e](#)

version_identifier: **0.3.0.0.e**

steward: [Steward_PDS](#)

submitter: [Submitter_PDS](#)

registered_by: [RA_0001_NASA_PDS_1](#)

registration_authority_identifier: [0001_NASA_PDS_1](#)

- **Administration Record: Beta_DD_0.3.0.0.e**

administration_record: [Beta_DD_0.3.0.0.e](#)
version_identifier: [0.3.0.0.e](#)
steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

- **Administration Record: Beta_DD_0.3.0.0.e**

administration_record: [Beta_DD_0.3.0.0.e](#)
version_identifier: [0.3.0.0.e](#)
steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

- **Administration Record: Beta_DD_0.3.0.0.e**

administration_record: [Beta_DD_0.3.0.0.e](#)
version_identifier: [0.3.0.0.e](#)
steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

- **AdministrationRecord**

identifier: [Beta_DD_0.3.0.0.e](#)
administrative_note: Test load from PDS4 Master Model
administrative_status: Final
change_description: *In development.
creation_date: [2009-10-10](#)
effective_date: [2009-10-10](#)
last_change_date: [2009-10-10](#)
origin: **Planetary Data System**
registration_status: **Preferred**
unresolved_issue: **Issues still being determined.**
until_date: [2019-12-31](#)
label: [Beta_DD_0.3.0.0.e](#)
explanatory_comment: This is a test load of a ISO/IEC 11179 Data Dictionary from the PDS4 master model.

- **Steward**

identifier: [Steward_PDS](#)
label: [Steward_PDS](#)
contact: [Elizabeth_Rye](#)
organization: [RA_0001_NASA_PDS_1](#)

- **Submitter**

identifier: [Submitter_PDS](#)
label: [Submitter_PDS](#)
contact: [Elizabeth_Rye](#)
organization: [RA_0001_NASA_PDS_1](#)

- **RegistrationAuthority**

Identifier: [RA_0001_NASA_PDS_1](#)
organization_mailing_address: **4800 Oak Grove Drive, Pasadena, CA 91109**
organization_name: **NASA Planetary Data System**
label: [RA_0001_NASA_PDS_1](#)
documentation_language_identifier: **LI_English**
language_used: **LI_English**
registrar: **PDS_Registrar**
registration_authority_identifier: [0001_NASA_PDS_1](#)

- **Archive_Bundle**

description: **An archive bundle is a product that references primary collections.**
role: **Concrete**

- **Identification_Area_Bundle Occurs 1 Times**

description: **The bundle identification area consists of attributes that identify and name a bundle.**
role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Bundle**

- **Cross_Reference_Area_Bundle - Occurs 0 to 1 Times**

description: **The bundle cross reference area provides references to associated registered products.**
role: **Concrete**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association**

- **End Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered**

with the PDS.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* Optional

attribute: **doi** value: *value* Optional

attribute: **reference_text** value: *value*

attribute: **url** value: *value* Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Bundle**

- **Bundle_Member_Entry - Occurs 1 to * Times**

description: **The Bundle Member Entry class provides a member reference to a collection.**

role: **Concrete**

attribute: **file_specification_name** value: *value*

attribute: **lid_reference** value: *value*

attribute: **reference_association_type** value: **has_browse_collection, has_calibration_collection, has_context_collection, has_data_collection, has_document_collection, has_geometry_collection, has_member_collection, has_miscellaneous_collection, has_spice_collection, has_xml_schema_collection**

- **End Bundle_Member_Entry**

- **End Archive_Bundle**
-

- **Az_el_coordinate_system**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **coordinate_system_name** value: ..., **apxs_frame, body_fixed_spherical_coords, earth-sun_line_cartes_coords, ecliptic_inertial_cart_coords, ecliptic_inertl_sphercl_coords, equatorial_inert_sphercl_coords, equatorial_inertial_cart_coord, jupiter_minus_system_iii, mast_frame, mb_frame, mean_inertial_hg_1950, mi_frame, neptune_west_longitude_system, non-rotating_spin_coordinates, planet_centered_cylindrical, planetocentric, planetographic, pvo_inertial_spacecraft_coords, pvo_spinning_spacecraft_coords, rat_frame, rover_frame, saturn_minus_longitude_system, sc_centered_ecliptic_coords, uranus_minus_longitude_system, uranus_west_longitude_system**

attribute: **positive_azimuth_direction** value: **clockwise, counterclockwise**

attribute: **positive_elevation_direction** value: **down, nadir, up, zenith**

attribute: **reference_coordinate_system_name** value: *value*

- **Origin_Offset_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- **End Origin_Offset_Vector**

- **Origin_Rotation_Quaternion Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **cosine** value: *value*

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- **End Origin_Rotation_Quaternion**

- **End Az_el_coordinate_system**
-

- **CAHVORE**

description: **Built upon the CAHVOR model, but describes more general cameras including those with fisheye or**

otherwise wide field of view lenses.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

- **Coordinate_System Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Abstract**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **coordinate_system_name** value: ..., apxs_frame, body_fixed_spherical_coords, earth-sun_line_cartes_coords, ecliptic_inertial_cart_coords, ecliptic_inertl_sphercl_coords, equatorial_inert_sphrcI_coords, equatorial_inertial_cart_coord, jupiter_minus_system_iii, mast_frame, mb_frame, mean_inertial_hg_1950, mi_frame, neptune_west_longitude_system, non-rotating_spin_coordinates, planet_centered_cylindrical, planetocentric, planetographic, pvo_inertial_spacecraft_coords, pvo_spinning_spacecraft_coords, rat_frame, rover_frame, saturn_minus_longitude_system, sc_centered_ecliptic_coords, uranus_minus_longitude_system, uranus_west_longitude_system

- **End Coordinate_System**

- **Axis_Vector Occurs 1 Times**

description: **A vector defining the camera axis, which is normal to the image plane.**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- **End Axis_Vector**

- **Center_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- **End Center_Vector**

- **Horizontal_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- **End Horizontal_Vector**

- **Vertical_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- **End Vertical_Vector**

- **Vector Occurs 1 Times**

description: **Provides the coordinates of a point (x, y, z) in Cartesian space relative to the origin of a reference frame, thereby providing the magnitude and direction of a line from the origin to that point.**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- End Vector

- **Coefficients_Array Occurs 1 Times**

description: **An array providing the coefficients of a polynomial**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **coefficient_1** value: *value*

attribute: **coefficient_2** value: *value*

attribute: **coefficient_3** value: *value*

- End Coefficients_Array

- **Coefficients_Array Occurs 1 Times**

description: **An array providing the coefficients of a polynomial**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **coefficient_1** value: *value*

attribute: **coefficient_2** value: *value*

attribute: **coefficient_3** value: *value*

- End Coefficients_Array

- End CAHVORE
-

- **CAHVOR**

description: **Built upon the CAHV camera model, but also allows for cameras with radial lens distortion about the lens axis. (See Gennery, D. B. 1993)**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

- **Coordinate_System Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Abstract**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **coordinate_system_name** value: ..., apxs_frame, body_fixed_spherical_coords, earth-sun_line_cartes_coords, ecliptic_inertial_cart_coords, ecliptic_inertl_sphercl_coords, equatorial_inert_sphercl_coords, equatorial_inertial_cart_coord, jupiter_minus_system_iii, mast_frame, mb_frame, mean_inertial_hg_1950, mi_frame, neptune_west_longitude_system, non-rotating_spin_coordinates, planet_centered_cylindrical, planetocentric, planetographic, pvo_inertial_spacecraft_coords, pvo_spinning_spacecraft_coords, rat_frame, rover_frame, saturn_minus_longitude_system, sc_centered_ecliptic_coords, uranus_minus_longitude_system, uranus_west_longitude_system

- End Coordinate_System

- **Axis_Vector Occurs 1 Times**

description: **A vector defining the camera axis, which is normal to the image plane.**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- End Axis_Vector

- **Center_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*
attribute: **y** value: *value*
attribute: **z** value: *value*

- End Center_Vector

- **Horizontal_Vector Occurs 1 Times**

description: xxx TBD E. Rye xxx
role: **Concrete**
attribute: **x** value: *value*
attribute: **y** value: *value*
attribute: **z** value: *value*

- End Horizontal_Vector

- **Vertical_Vector Occurs 1 Times**

description: xxx TBD E. Rye xxx
role: **Concrete**
attribute: **x** value: *value*
attribute: **y** value: *value*
attribute: **z** value: *value*

- End Vertical_Vector

- **Vector Occurs 1 Times**

description: **Provides the coordinates of a point (x, y, z) in Cartesian space relative to the origin of a reference frame, thereby providing the magnitude and direction of a line from the origin to that point.**
role: **Concrete**
attribute: **x** value: *value*
attribute: **y** value: *value*
attribute: **z** value: *value*

- End Vector

- **Coefficients_Array Occurs 1 Times**

description: **An array providing the coefficients of a polynomial**
role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **coefficient_1** value: *value*
attribute: **coefficient_2** value: *value*
attribute: **coefficient_3** value: *value*

- End Coefficients_Array

- End CAHVOR
-

- **CAHV**

description: **A camera model, designed at JPL, equivalent to the standard linear photogrammetric model for a pinhole camera. It is useful for very small field of view cameras and as a building block for more complex camera models. (Madison et. al., 2005)**

role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}

- **Coordinate_System Occurs 1 Times**

description: xxx TBD E. Rye xxx
role: **Abstract**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **coordinate_system_name** value: ..., apxs_frame, body_fixed_spherical_coords, earth-sun_line_cartes_coords, ecliptic_inertial_cart_coords, ecliptic_inertl_sphercl_coords, equatorial_inert_sphercl_coords, equatorial_inertial_cart_coord, jupiter_minus_system_iii, mast_frame,

mb_frame, mean_inertial_hg_1950, mi_frame, neptune_west_longitude_system, non-rotating_spin_coordinates, planet_centered_cylindrical, planetocentric, planetographic, pvo_inertial_spacecraft_coords, pvo_spinning_spacecraft_coords, rat_frame, rover_frame, saturn_minus_longitude_system, sc_centered_ecliptic_coords, uranus_minus_longitude_system, uranus_west_longitude_system

- End Coordinate_System

- **Axis_Vector Occurs 1 Times**

description: **A vector defining the camera axis, which is normal to the image plane.**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- End Axis_Vector

- **Center_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- End Center_Vector

- **Horizontal_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- End Horizontal_Vector

- **Vertical_Vector Occurs 1 Times**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **x** value: *value*

attribute: **y** value: *value*

attribute: **z** value: *value*

- End Vertical_Vector

- End CAHV
-

- **Camera_Parameters**

description: **xxx TBD E. Rye xxx**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **edit_mode_id** value: *value* Optional

attribute: **exposure_duration** value: *value* Optional

attribute: **filter_id** value: 0, 1, 2, 3, 4, 5, 6, 7, 8, A, B, C1, C2, C3, D, HFM1, LFM1 Optional

attribute: **filter_name** value: A, B, BLUE, BLUE-GREEN, C, CLEAR, D, E, F, GREEN, IR-7270, IR-7560, IR-8890, IR-9680, L1000_R480, L440_R440, L450_R670, L670_R670, L800_R750, L860_R-DIOPTER, L885_R947, L900_R600, L925_R935, L930_R530, L935_R990, L965_R965, LONGWAVE, METHANE-JST, METHANE-U, MINUS BLUE, MI_CLOSED, MI_OPEN, NEAR-INFRARED, NONE, ORANGE, PANCAM_L2_753NM, PANCAM_L8_440NM, PANCAM_LV_602NM, PANCAM_R8_880NM, RED, SHORTWAVE, SODIUM-D, SOLAR UV-22, T11, T15, T20, T7, T9, ULTRAVIOLET, VIOLET Optional

attribute: **gain_mode_id** value: 100K, 10K, 400K, 40K, HIGH, LOW Optional

attribute: **scan_mode_id** value: .055, 4.0, epf, long, short Optional

attribute: **shutter_mode_id** value: BODARK, BOTSIM, BSIMAN, NADARK, NAONLY, WADARK, WAONLY Optional

- End Camera_Parameters
-

- **Coefficients_Array**

description: **An array providing the coefficients of a polynomial**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **coefficient_1** value: **value**

attribute: **coefficient_2** value: **value**

attribute: **coefficient_3** value: **value**

- End Coefficients_Array
-

- **Collection_Browse**

description: **A Browse collection is a product that has a table of references to one or more browse products.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **contains_primary_member** value: **value**

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution

- End Subject_Area

- End Identification_Area_Collection

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- **End Collection_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Collection**

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** ^{Optional}

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- **End Inventory_LIDVID_Primary**

- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**

- **End Inventory_LIDVID_Secondary**

- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: *value* ^{Optional}
attribute: **creation_date_time** value: *value* ^{Optional}
attribute: **file_name** value: *value*
attribute: **file_size** value: *value* ^{Optional}
attribute: **max_record_bytes** value: *value* ^{Optional}
attribute: **md5_checksum** value: *value* ^{Optional}
attribute: **records** value: *value* ^{Optional}

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **1**
attribute: **offset** value: *value*
attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**

role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**
attribute: **field_number** value: **1** ^{Optional}
attribute: **field_data_type** value: **ASCII_LID**
attribute: **field_location** value: **1**
attribute: **field_length** value: *value*
attribute: **field_format** value: **URN:NASA:PDS:xxxx** ^{Optional}
attribute: **field_description** value: *value* ^{Optional}

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Browse**

- **Collection_Calibration**

description: **A Calibration collection is a product that has a table of references to one or more calibration products.**
role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: *value*
attribute: **version_id** value: *value*
attribute: **product_class** value: *value*
attribute: **title** value: *value*
attribute: **alternate_title** value: *value* ^{Optional}
attribute: **alternate_id** value: *value* ^{Optional}

attribute: **contains_primary_member** value: **value**
attribute: **last_modification_date_time** value: **value** ^{Optional}
attribute: **product_subclass** value: **value** ^{Optional}

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** ^{Optional}
attribute: **data_set_name** value: **value** ^{Optional}
attribute: **instrument_name** value: **value** ^{Optional}
attribute: **instrument_host_name** value: **value** ^{Optional}
attribute: **full_name** value: **value** ^{Optional}
attribute: **investigation_name** value: **value** ^{Optional}
attribute: **observing_system_name** value: **value** ^{Optional}

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** ^{Optional}
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}
attribute: **title** value: **value**
attribute: **description** value: **value** ^{Optional}

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}
attribute: **lidvid_reference** value: **value** ^{Optional}
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- End Observing_System

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- End Collection_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **doi** value: **value** ^{Optional}

attribute: **reference_text** value: **value**

attribute: **url** value: **value** ^{Optional}

- End Bibliographic_Reference

- End Cross_Reference_Area_Collection

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- End File

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** ^{Optional}

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- **End Inventory_LIDVID_Primary**

- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: **value**

attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: *has_member_LIDVID_Secondary*

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: *LIDVID*

attribute: **field_number** value: *1*

attribute: **field_data_type** value: *ASCII_LIDVID*

attribute: **field_location** value: *1*

attribute: **field_length** value: *value*

attribute: **field_format** value: *URN:NASA:PDS:xxx::M.n* Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**

- **End Inventory_LIDVID_Secondary**

- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **comment** value: *value* Optional

attribute: **creation_date_time** value: *value* Optional

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* Optional

attribute: **max_record_bytes** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: *CHARACTER*

attribute: **fields** value: *1*

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

attribute: **reference_association_type** value: *has_member_LID_Secondary*

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**
role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Calibration**

- **Collection_Context**

description: **A Context collection is a product that has a table of references to one or more context products.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **contains_primary_member** value: **value**

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associiation, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- **End Collection_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Collection**

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to**

primary members. The references are product LIDVIDs.
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **2**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**
attribute: **field_number** value: **1**
attribute: **field_data_type** value: **ASCII_LIDVID**
attribute: **field_location** value: **1**
attribute: **field_length** value: **value**
attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** Optional
attribute: **field_description** value: **value** Optional

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**
attribute: **field_number** value: **2** Optional
attribute: **field_data_type** value: **ASCII_File_Specification_Name**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **dir1/dir2/file_name.file_extension** Optional
attribute: **field_description** value: **value** Optional

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- End Inventory_LIDVID_Primary
- End File_Area_Inventory_LIDVID_Primary

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
 role: **Concrete**

attribute: **local_identifier** value: **value** Optional
 attribute: **comment** value: **value** Optional
 attribute: **creation_date_time** value: **value** Optional
 attribute: **file_name** value: **value**
 attribute: **file_size** value: **value** Optional
 attribute: **max_record_bytes** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **records** value: **value** Optional

- End File

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**
 role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **fields** value: **1**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**
 attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
 role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**
 attribute: **field_name** value: **LIDVID**
 attribute: **field_number** value: **1**
 attribute: **field_data_type** value: **ASCII_LIDVID**
 attribute: **field_location** value: **1**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Field_LIDVID

- End Table_Record_Inventory_LIDVID_Secondary

- End Inventory_LIDVID_Secondary

- End File_Area_Inventory_LIDVID_Secondary

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **comment** value: *value* Optional

attribute: **creation_date_time** value: *value* Optional

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* Optional

attribute: **max_record_bytes** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**

role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: *value*

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Context**

- **Collection_Data**

description: **A Data collection is a product that has a table of references to one or more standard digital products.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **contains_primary_member** value: **value**
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **title** value: **value**
attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- End Observing_System_Reference_Entry
- End Observing_System_Component
- End Observing_System

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- End Collection_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference

- **End Cross_Reference_Area_Collection**

attribute: **process_level_id** value: **CLB, DRV, RAW, RDC** Optional

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** ^{Optional}

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- **End Inventory_LIDVID_Primary**

- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: 1
attribute: **offset** value: *value*
attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: has_member_LIDVID_Secondary

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**
role: **Concrete**

attribute: **field_name** value: LIDVID
attribute: **field_number** value: 1
attribute: **field_data_type** value: ASCII_LIDVID
attribute: **field_location** value: 1
attribute: **field_length** value: *value*
attribute: **field_format** value: URN:NASA:PDS:xxxx::M.n Optional
attribute: **field_description** value: *value* Optional

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**

- **End Inventory_LIDVID_Secondary**

- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: *value* Optional
attribute: **comment** value: *value* Optional
attribute: **creation_date_time** value: *value* Optional
attribute: **file_name** value: *value*
attribute: **file_size** value: *value* Optional
attribute: **max_record_bytes** value: *value* Optional
attribute: **md5_checksum** value: *value* Optional
attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* Optional
attribute: **encoding_type** value: CHARACTER
attribute: **fields** value: 1
attribute: **offset** value: *value*
attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: has_member_LID_Secondary

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a**

secondary member. The reference is a LID.
role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Data**

- **Collection_Document**

description: **A Document collection is a product that has a table of references to one or more document products.**
role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **contains_primary_member** value: **value**

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- **End Collection_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Collection**

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}
attribute: **comment** value: **value** ^{Optional}
attribute: **creation_date_time** value: **value** ^{Optional}
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** ^{Optional}
attribute: **max_record_bytes** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **2**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**
attribute: **field_name** value: **LIDVID**
attribute: **field_number** value: **1**
attribute: **field_data_type** value: **ASCII_LIDVID**
attribute: **field_location** value: **1**
attribute: **field_length** value: **value**
attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**
attribute: **field_name** value: **file_specification_name**
attribute: **field_number** value: **2** ^{Optional}
attribute: **field_data_type** value: **ASCII_File_Specification_Name**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **dir1/dir2/file_name.file_extension** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_File_Specification_Name**

- End Table_Record_Inventory_LIDVID_Primary
 - End Inventory_LIDVID_Primary
- End File_Area_Inventory_LIDVID_Primary

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
 role: **Concrete**

attribute: **local_identifier** value: **value** Optional
 attribute: **comment** value: **value** Optional
 attribute: **creation_date_time** value: **value** Optional
 attribute: **file_name** value: **value**
 attribute: **file_size** value: **value** Optional
 attribute: **max_record_bytes** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **records** value: **value** Optional

- End File

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**
 role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **fields** value: **1**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**
 attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
 role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**
 attribute: **field_name** value: **LIDVID**
 attribute: **field_number** value: **1**
 attribute: **field_data_type** value: **ASCII_LIDVID**
 attribute: **field_location** value: **1**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Field_LIDVID

- End Table_Record_Inventory_LIDVID_Secondary
 - End Inventory_LIDVID_Secondary
 - End File_Area_Inventory_LIDVID_Secondary

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **comment** value: *value* Optional

attribute: **creation_date_time** value: *value* Optional

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* Optional

attribute: **max_record_bytes** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**

role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: *value*

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Document**

- **Collection_Generic**

description: **A Generic collection is a product that has a table of references to one or more generic products.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*
attribute: **alternate_title** value: *value* Optional
attribute: **alternate_id** value: *value* Optional
attribute: **contains_primary_member** value: *value*
attribute: **last_modification_date_time** value: *value* Optional
attribute: **product_subclass** value: *value* Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional
attribute: **data_set_name** value: *value* Optional
attribute: **instrument_name** value: *value* Optional
attribute: **instrument_host_name** value: *value* Optional
attribute: **full_name** value: *value* Optional
attribute: **investigation_name** value: *value* Optional
attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*
attribute: **lidvid_reference** value: *value* Optional
attribute: **name** value: *value*
attribute: **primary_name** value: *value*
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional
attribute: **title** value: *value*
attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional
attribute: **lidvid_reference** value: *value* Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- End Observing_System_Reference_Entry
- End Observing_System_Component
- End Observing_System

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- End Collection_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference

- End Cross_Reference_Area_Collection

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** ^{Optional}

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- **End Inventory_LIDVID_Primary**

- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: **value**

attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: *has_member_LIDVID_Secondary*

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: *LIDVID*

attribute: **field_number** value: *1*

attribute: **field_data_type** value: *ASCII_LIDVID*

attribute: **field_location** value: *1*

attribute: **field_length** value: *value*

attribute: **field_format** value: *URN:NASA:PDS:xxx::M.n* Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**

- **End Inventory_LIDVID_Secondary**

- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **comment** value: *value* Optional

attribute: **creation_date_time** value: *value* Optional

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* Optional

attribute: **max_record_bytes** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: *CHARACTER*

attribute: **fields** value: *1*

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

attribute: **reference_association_type** value: *has_member_LID_Secondary*

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**
role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Generic**

- **Collection_Geometry**

description: **A Geometry collection is a product that has a table of references to one or more geometry products.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **contains_primary_member** value: **value**

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associiation, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- **End Collection_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Collection**

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to**

primary members. The references are product LIDVIDs.
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **2**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**
attribute: **field_number** value: **1**
attribute: **field_data_type** value: **ASCII_LIDVID**
attribute: **field_location** value: **1**
attribute: **field_length** value: **value**
attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** Optional
attribute: **field_description** value: **value** Optional

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**
attribute: **field_number** value: **2** Optional
attribute: **field_data_type** value: **ASCII_File_Specification_Name**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **dir1/dir2/file_name.file_extension** Optional
attribute: **field_description** value: **value** Optional

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- End Inventory_LIDVID_Primary
- End File_Area_Inventory_LIDVID_Primary

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
 role: **Concrete**

attribute: **local_identifier** value: **value** Optional
 attribute: **comment** value: **value** Optional
 attribute: **creation_date_time** value: **value** Optional
 attribute: **file_name** value: **value**
 attribute: **file_size** value: **value** Optional
 attribute: **max_record_bytes** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **records** value: **value** Optional

- End File

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**
 role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **fields** value: **1**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**
 attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
 role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**
 attribute: **field_name** value: **LIDVID**
 attribute: **field_number** value: **1**
 attribute: **field_data_type** value: **ASCII_LIDVID**
 attribute: **field_location** value: **1**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Field_LIDVID

- End Table_Record_Inventory_LIDVID_Secondary

- End Inventory_LIDVID_Secondary

- End File_Area_Inventory_LIDVID_Secondary

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* ^{Optional}

attribute: **comment** value: *value* ^{Optional}

attribute: **creation_date_time** value: *value* ^{Optional}

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* ^{Optional}

attribute: **max_record_bytes** value: *value* ^{Optional}

attribute: **md5_checksum** value: *value* ^{Optional}

attribute: **records** value: *value* ^{Optional}

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**

role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** ^{Optional}

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: *value*

attribute: **field_format** value: **URN:NASA:PDS:xxxx** ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Geometry**

- **Collection_Miscellaneous**

description: **A Miscellaneous collection is a product that has a table of references to one or more products that are not otherwise classified.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*
attribute: **title** value: *value*
attribute: **alternate_title** value: *value* Optional
attribute: **alternate_id** value: *value* Optional
attribute: **contains_primary_member** value: *value*
attribute: **last_modification_date_time** value: *value* Optional
attribute: **product_subclass** value: *value* Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional
attribute: **data_set_name** value: *value* Optional
attribute: **instrument_name** value: *value* Optional
attribute: **instrument_host_name** value: *value* Optional
attribute: **full_name** value: *value* Optional
attribute: **investigation_name** value: *value* Optional
attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*
attribute: **lidvid_reference** value: *value* Optional
attribute: **name** value: *value*
attribute: **primary_name** value: *value*
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional
attribute: **title** value: *value*
attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- End Observing_System_Reference_Entry
- End Observing_System_Component
- End Observing_System

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- End Collection_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference

- End Cross_Reference_Area_Collection

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: *value*

attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** Optional

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- **End Inventory_LIDVID_Primary**

- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **comment** value: *value* Optional

attribute: **creation_date_time** value: *value* Optional

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* Optional

attribute: **max_record_bytes** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **1**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**
role: **Concrete**
attribute: **field_name** value: **LIDVID**
attribute: **field_number** value: **1**
attribute: **field_data_type** value: **ASCII_LIDVID**
attribute: **field_location** value: **1**
attribute: **field_length** value: **value**
attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**

- **End Inventory_LIDVID_Secondary**

- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**
attribute: **local_identifier** value: **value** ^{Optional}
attribute: **comment** value: **value** ^{Optional}
attribute: **creation_date_time** value: **value** ^{Optional}
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** ^{Optional}
attribute: **max_record_bytes** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**
role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **1**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**

role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_Miscellaneous**

- **Collection_SPICE**

description: **A SPICE collection is a product that has a table of references to one or more SPICE products.**

role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **contains_primary_member** value: **value**

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: *value*
attribute: **primary_name** value: *value*
attribute: **role** value: ALTERNATE, PRIMARY

- End Name_Resolution
- End Subject_Area
- End Identification_Area_Collection
- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **title** value: *value*

attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: SENSOR, SOURCE

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: *value* Optional

attribute: **reference_association_type** value: has_association, has_instrument, has_instrument_host

- End Observing_System_Reference_Entry
- End Observing_System_Component
- End Observing_System

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: *value* Optional

attribute: **reference_association_type** value: has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection

- End Collection_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* Optional

attribute: **doi** value: *value* Optional
attribute: **reference_text** value: *value*
attribute: **url** value: *value* Optional

- End Bibliographic_Reference
- End Cross_Reference_Area_Collection
- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDs.
role: Concrete

- **File Occurs 1 Times**

description: The File class consists of attributes that describe a file in a data store.
role: Concrete

attribute: **local_identifier** value: *value* Optional
attribute: **comment** value: *value* Optional
attribute: **creation_date_time** value: *value* Optional
attribute: **file_name** value: *value*
attribute: **file_size** value: *value* Optional
attribute: **max_record_bytes** value: *value* Optional
attribute: **md5_checksum** value: *value* Optional
attribute: **records** value: *value* Optional

- End File
- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: The Inventory LIDVID Primary class defines the inventory for primary members of a collection.

role: Concrete
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* Optional
attribute: **encoding_type** value: CHARACTER
attribute: **fields** value: 2
attribute: **offset** value: *value*
attribute: **record_bytes** value: *value*
attribute: **records** value: *value*
attribute: **reference_association_type** value: has_member_LIDVID_Primary

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: The Table Record Inventory LIDVID Primary class defines the inventory record for a primary member.
role: Concrete

- **Table_Field_LIDVID Occurs 1 Times**

description: The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.

role: Concrete
attribute: **field_name** value: LIDVID
attribute: **field_number** value: 1
attribute: **field_data_type** value: ASCII_LIDVID
attribute: **field_location** value: 1
attribute: **field_length** value: *value*
attribute: **field_format** value: URN:NASA:PDS:xxx::M.n Optional
attribute: **field_description** value: *value* Optional

- End Table_Field_LIDVID
- **Table_Field_File_Specification_Name Occurs 1 Times**

description: The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.
role: Concrete

attribute: **field_name** value: **file_specification_name**
attribute: **field_number** value: **2** ^{Optional}
attribute: **field_data_type** value: **ASCII_File_Specification_Name**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **dir1/dir2/file_name.file_extension** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_File_Specification_Name**
- **End Table_Record_Inventory_LIDVID_Primary**
- **End Inventory_LIDVID_Primary**
- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}
attribute: **comment** value: **value** ^{Optional}
attribute: **creation_date_time** value: **value** ^{Optional}
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** ^{Optional}
attribute: **max_record_bytes** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **records** value: **value** ^{Optional}

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**
role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **1**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**
role: **Concrete**

attribute: **field_name** value: **LIDVID**
attribute: **field_number** value: **1**
attribute: **field_data_type** value: **ASCII_LIDVID**
attribute: **field_location** value: **1**
attribute: **field_length** value: **value**
attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**
- **End Inventory_LIDVID_Secondary**
- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
 role: **Concrete**

attribute: **local_identifier** value: **value** Optional
 attribute: **comment** value: **value** Optional
 attribute: **creation_date_time** value: **value** Optional
 attribute: **file_name** value: **value**
 attribute: **file_size** value: **value** Optional
 attribute: **max_record_bytes** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **records** value: **value** Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**
 role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **fields** value: **1**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**
 attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**
 role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**
 attribute: **field_name** value: **LID**
 attribute: **field_number** value: **1** Optional
 attribute: **field_data_type** value: **ASCII_LID**
 attribute: **field_location** value: **1**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional
 attribute: **field_description** value: **value** Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_SPICE**

- **Collection_Volume_PDS3**

description: A Collection Volume PDS3 product captures the PDS3 volume information.
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: The identification area consists of attributes that identify and name an object.

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* Optional

attribute: **alternate_id** value: *value* Optional

attribute: **last_modification_date_time** value: *value* Optional

attribute: **product_subclass** value: *value* Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.

role: **Concrete**

attribute: **target_name** value: *value* Optional

attribute: **data_set_name** value: *value* Optional

attribute: **instrument_name** value: *value* Optional

attribute: **instrument_host_name** value: *value* Optional

attribute: **full_name** value: *value* Optional

attribute: **investigation_name** value: *value* Optional

attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: The Name_Resolution class provides both primary and alternate names of an object.

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* Optional

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: ALTERNATE, PRIMARY

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Volume_PDS3 Occurs 1 Times**

description: The Volume_PDS3 class is used to capture the volume information from the PDS3 Data Set Catalog.

role: **Concrete**

attribute: **archive_status** value: ARCHIVED, ARCHIVED_ACCUMULATING, IN_LIEN_RESOLUTION, IN_LIEN_RESOLUTION_ACCUMULATING, IN_PEER_REVIEW, IN_PEER_REVIEW_ACCUMULATING, IN_QUEUE, IN_QUEUE_ACCUMULATING, LOCALLY_ARCHIVED, LOCALLY_ARCHIVED_ACCUMULATING, PRE_PEER_REVIEW, PRE_PEER_REVIEW_ACCUMULATING, SAFED, SUPERSEDED Optional

attribute: **description** value: *value* Optional

attribute: **archive_status_note** value: *value*

attribute: **curating_node_id** value: *value* Optional

attribute: **medium_type** value: *value*

attribute: **publication_date** value: *value*

attribute: **volume_de_fullname** value: *value*

attribute: **volume_format** value: *value*

attribute: **volume_id** value: *value*

attribute: **volume_name** value: *value*

attribute: **volume_set_id** value: *value*

attribute: **volume_size** value: *value*

attribute: **volume_version_id** value: *value*

- **End Volume_PDS3**

- **Cross_Reference_Area_Generic - Occurs 0 to 1 Times**

description: **The cross reference area generic provides references for associated products.**
role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Reference_Entry_Generic - Occurs 0 to * Times**

description: **The Reference Entry Generic class provides a reference and type information about the reference. The reference is to a product.**

role: **Abstract**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **value**

- **End Reference_Entry_Generic**

- **End Cross_Reference_Area_Generic**

- **End Collection_Volume_PDS3**

- **Collection_Volume_Set_PDS3**

description: **A Collection Volume Set PDS3 product captures the PDS3 volume set information.**
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution
- End Subject_Area
- End Identification_Area
- **Volume_Set_PDS3 Occurs 1 Times**

description: **The Volume_Set_PDS3 class is used to capture the volume set information from the PDS3 Data Set Catalog.**

role: **Concrete**

attribute: **description** value: **value** Optional
attribute: **volume_series_name** value: **value**
attribute: **volume_set_id** value: **value**
attribute: **volume_set_name** value: **value**
attribute: **volumes** value: **value**

- End Volume_Set_PDS3
- **Cross_Reference_Area_Generic - Occurs 0 to 1 Times**

description: **The cross reference area generic provides references for associated products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- **Reference_Entry_Generic - Occurs 0 to * Times**

description: **The Reference Entry Generic class provides a reference and type information about the reference. The reference is to a product.**

role: **Abstract**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **value**

- End Reference_Entry_Generic
 - End Cross_Reference_Area_Generic
 - End Collection_Volume_Set_PDS3
-

• **Collection_XML_Schema**

description: **An XML_Schema collection is a product that has a table of references to one or more XML schema products.**
role: **Concrete**

- **Identification_Area_Collection Occurs 1 Times**

description: **The collection identification area consists of attributes that identify and name a collection.**

role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: *value* Optional
attribute: **contains_primary_member** value: *value*
attribute: **last_modification_date_time** value: *value* Optional
attribute: **product_subclass** value: *value* Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional
attribute: **data_set_name** value: *value* Optional
attribute: **instrument_name** value: *value* Optional
attribute: **instrument_host_name** value: *value* Optional
attribute: **full_name** value: *value* Optional
attribute: **investigation_name** value: *value* Optional
attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*
attribute: **lidvid_reference** value: *value* Optional
attribute: **name** value: *value*
attribute: **primary_name** value: *value*
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Collection**

- **Cross_Reference_Area_Collection - Occurs 0 to 1 Times**

description: **The collection cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional
attribute: **title** value: *value*
attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional
attribute: **lidvid_reference** value: *value* Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- End Observing_System_Component
- End Observing_System

- **Collection_Reference_Entry - Occurs 0 to * Times**

description: **The Collection Reference Entry class provides a collection specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_associated_collection, has_file_manifest, has_file_manifest_collection, has_investigation_collection, has_node_collection, has_publication_collection, has_target_collection, has_update_collection**

- End Collection_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **doi** value: **value** ^{Optional}

attribute: **reference_text** value: **value**

attribute: **url** value: **value** ^{Optional}

- End Bibliographic_Reference
- End Cross_Reference_Area_Collection

- **File_Area_Inventory_LIDVID_Primary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Primary class describes a file and an inventory with references to primary members. The references are product LIDVIDS.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- End File

- **Inventory_LIDVID_Primary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Primary class defines the inventory for primary members of a collection.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member_LIDVID_Primary**

- **Table_Record_Inventory_LIDVID_Primary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Primary class defines the inventory record for a**

primary member.
role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxx::M.n** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_LIDVID**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** Optional

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Inventory_LIDVID_Primary**

- **End Inventory_LIDVID_Primary**

- **End File_Area_Inventory_LIDVID_Primary**

- **File_Area_Inventory_LIDVID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LIDVID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDVIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- **End File**

- **Inventory_LIDVID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LIDVID Secondary class defines the inventory for secondary members of a collection. The references are LIDVIDs.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: *value*

attribute: **reference_association_type** value: **has_member_LIDVID_Secondary**

- **Table_Record_Inventory_LIDVID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LIDVID Secondary class defines the inventory record for a secondary member. The reference is a LIDVID.**

role: **Concrete**

- **Table_Field_LIDVID Occurs 1 Times**

description: **The Table Field LIDVID class defines a table field that provides the logical identifier and version identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LIDVID**

attribute: **field_number** value: **1**

attribute: **field_data_type** value: **ASCII_LIDVID**

attribute: **field_location** value: **1**

attribute: **field_length** value: *value*

attribute: **field_format** value: **URN:NASA:PDS:xxxx::M.n** Optional

attribute: **field_description** value: *value* Optional

- **End Table_Field_LIDVID**

- **End Table_Record_Inventory_LIDVID_Secondary**

- **End Inventory_LIDVID_Secondary**

- **End File_Area_Inventory_LIDVID_Secondary**

- **File_Area_Inventory_LID_Secondary - Occurs 0 to 1 Times**

description: **The File Area Inventory LID Secondary class describes a file and an inventory with references to secondary members. The references are product LIDs.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **comment** value: *value* Optional

attribute: **creation_date_time** value: *value* Optional

attribute: **file_name** value: *value*

attribute: **file_size** value: *value* Optional

attribute: **max_record_bytes** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **records** value: *value* Optional

- **End File**

- **Inventory_LID_Secondary Occurs 1 Times - Base_Class:Table_Base**

description: **The Inventory LID Secondary class defines the inventory for secondary members of a collection. The references are LIDs.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **1**

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

attribute: **reference_association_type** value: **has_member_LID_Secondary**

- **Table_Record_Inventory_LID_Secondary Occurs 1 Times**

description: **The Table Record Inventory LID Secondary class defines the inventory record for a secondary member. The reference is a LID.**

role: **Concrete**

- **Table_Field_LID Occurs 1 Times**

description: **The Table_Field_LID class defines a table field that provides the logical identifier for a product.**

role: **Concrete**

attribute: **field_name** value: **LID**

attribute: **field_number** value: **1** Optional

attribute: **field_data_type** value: **ASCII_LID**

attribute: **field_location** value: **1**

attribute: **field_length** value: **value**

attribute: **field_format** value: **URN:NASA:PDS:xxxx** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_LID**

- **End Table_Record_Inventory_LID_Secondary**

- **End Inventory_LID_Secondary**

- **End File_Area_Inventory_LID_Secondary**

- **End Collection_XML_Schema**

- **Delivery_Manifest**

description: **A delivery manifest is a system product that contains a table of references to one or more files.**

role: **Concrete**

- **Identification_Area_Manifest Occurs 1 Times**

description: **The manifest identification area consists of attributes that identify and name a manifest.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Manifest**

- **Cross_Reference_Area_Manifest - Occurs 0 to 1 Times**

description: **The manifest cross reference area provides references to associated registered products.**
role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association**

- **End Reference_Entry**

- **End Cross_Reference_Area_Manifest**

- **File_Area_Manifest Occurs 1 Times**

description: **The File Area Manifest class describes a file that contains a character table that is compliant to a file generated from MD5 checksum software.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- **End File**

- **Manifest Occurs 1 Times - Base_Class:Table_Base**

description: **The manifest class defines a table for file references.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **2**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

attribute: **reference_association_type** value: **has_member** Optional

- **Table_Record_Manifest Occurs 1 Times**

description: **The Table Record Manifest class defines the record for an MD5 checksum manifest table.**

role: **Concrete**

- **Table_Field_Checksum Occurs 1 Times**

description: **The Table Field Checksum class defines a table field that provides a file checksum.**

role: **Concrete**

attribute: **field_name** value: **MD5_checksum**

attribute: **field_number** value: **2** Optional

attribute: **field_data_type** value: **ASCII_MD5_Checksum**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_Checksum**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**

role: **Concrete**

attribute: **field_name** value: **file_specification_name**

attribute: **field_number** value: **2** Optional

attribute: **field_data_type** value: **ASCII_File_Specification_Name**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **dir1/dir2/file_name.file_extension** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Manifest**

- **End Manifest**

- **End File_Area_Manifest**

- **End Delivery_Manifest**

- **Detector**

description: **The Detector class provides a description of a physical object that collects data.**

role: **Concrete**

attribute: **description** value: **value** Optional

- **End Detector**

- **Header**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **description** value: **value** Optional

attribute: **bytes** value: **value**

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**

attribute: **name** value: **value** Optional

attribute: **offset** value: **value**

- **End Header**

- **Image_Map_Projection**

description: **The IMAGE_MAP_PROJECTION object is one of two distinct objects that define the map projection used in creating the digital images in a PDS data set. The name of the other associated object that completes the definition is DATA_SET_MAP_PROJECTION. The map projection information resides in these two objects, essentially to reduce data redundancy and at the same time allow the inclusion of elements needed to process the data at the image level.**

Basically, static information that is applicable to the complete data set reside in the DATA_SET_MAP_PROJECTION object, while dynamic information that is applicable to the individual images reside in the IMAGE_MAP_PROJECTION object.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **data_set_id** value: *value* ^{Optional}

attribute: **a_axis_radius** value: *value*

attribute: **b_axis_radius** value: *value*

attribute: **c_axis_radius** value: *value*

attribute: **center_latitude** value: *value*

attribute: **center_longitude** value: *value*

attribute: **coordinate_system_name** value: ..., apxs_frame, body_fixed_spherical_coords, earth-sun_line_cartes_coords, ecliptic_inertial_cart_coords, ecliptic_inertl_sphercl_coords, equatorial_inert_sphrcl_coords, equatorial_inertial_cart_coord, jupiter_minus_system_iii, mast_frame, mb_frame, mean_inertial_hg_1950, mi_frame, neptune_west_longitude_system, non-rotating_spin_coordinates, planet_centered_cylindrical, planetocentric, planetographic, pvo_inertial_spacecraft_coords, pvo_spinning_spacecraft_coords, rat_frame, rover_frame, saturn_minus_longitude_system, sc_centered_ecliptic_coords, uranus_minus_longitude_system, uranus_west_longitude_system

attribute: **coordinate_system_type** value: body-fixed_non-rotating, body-fixed_rotating, inertial

attribute: **eastern_most_longitude** value: *value*

attribute: **first_standard_parallel** value: *value* ^{Optional}

attribute: **horizontal_framelet_offset** value: *value* ^{Optional}

attribute: **image_id** value: *value* ^{Optional}

attribute: **line_first_pixel** value: *value*

attribute: **line_last_pixel** value: *value*

attribute: **line_projection_offset** value: *value*

attribute: **map_projection_name** value: AITOFF, ALBERS, BONNE, BRIESEMEISTER, CYLINDRICAL_EQUAL_AREA, EQUIDISTANT, EQUIRECTANGULAR, GNOMONIC, HAMMER, HENDU, LAMBERT AZIMUTHAL EQUAL AREA, LAMBERT CONFORMAL, MERCATOR, MOLLWEIDE, OBLIQUE CYLINDRICAL, ORTHOGRAPHIC, POLAR STEREOGRAPHIC, SIMPLE CYLINDRICAL, SINUSOIDAL, STEREOGRAPHIC, TRANSVERSE MERCATOR, VAN DER GRINTEN, WERNER

attribute: **map_projection_rotation** value: *value*

attribute: **map_resolution** value: *value*

attribute: **map_scale** value: *value*

attribute: **maximum_latitude** value: *value*

attribute: **minimum_latitude** value: *value*

attribute: **positive_longitude_direction** value: east, west

attribute: **reference_latitude** value: *value* ^{Optional}

attribute: **reference_longitude** value: *value* ^{Optional}

attribute: **sample_first_pixel** value: *value*

attribute: **sample_last_pixel** value: *value*

attribute: **sample_projection_offset** value: *value*

attribute: **second_standard_parallel** value: *value* ^{Optional}

attribute: **vertical_framelet_offset** value: *value* ^{Optional}

attribute: **western_most_longitude** value: *value*

- End Image_Map_Projection
-

• Local_DD

description: The Local_DD class defines a local data dictionary.

role: **Concrete**

attribute: **comment** value: *value* ^{Optional}

attribute: **version_id** value: *value*

attribute: **registration_authority_id** value: *value*

attribute: **steward_id** value: *value*

attribute: **name_space_id** value: *value*

attribute: **full_name** value: *value*

attribute: **last_modification_date_time** value: *value*

attribute: **pds4_merge_flag** value: F, T

- Local_Attribute - Occurs 1 to * Times

description: The Local_Attribute class defines an attribute for a local data dictionary.

role: **Concrete**

attribute: **comment** value: *value*

attribute: **definition** value: *value*

attribute: **local_attribute_id** value: *value*

attribute: **name** value: *value*

attribute: **unit_of_measure_type** value: UnitOfMeasure_AmountOfSubstance, UnitOfMeasure_Angle, UnitOfMeasure_Angular_Velocity, UnitOfMeasure_Area, UnitOfMeasure_Frequency, UnitOfMeasure_Length, UnitOfMeasure_Mass, UnitOfMeasure_Misc, UnitOfMeasure_None, UnitOfMeasure_OpticalPathLength, UnitOfMeasure_Pressure, UnitOfMeasure_Radiance, UnitOfMeasure_Rates, UnitOfMeasure_Scale, UnitOfMeasure_Solid_Angle, UnitOfMeasure_Storage, UnitOfMeasure_Temperature, UnitOfMeasure_Time, UnitOfMeasure_Velocity, UnitOfMeasure_Voltage, UnitOfMeasure_Volume

attribute: **data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID

attribute: **minimum_value** value: *value*

attribute: **maximum_value** value: *value*

attribute: **pattern** value: *value*

- **Local_Value_Domain - Occurs 0 to * Times**

description: The **Local_Value_Domain** class defines a value and an optional definition for an attribute in a local data dictionary.

role: **Concrete**

attribute: **value** value: *value*

attribute: **value_meaning** value: *value* Optional

- **End Local_Value_Domain**

- **End Local_Attribute**

- **Local_Class - Occurs 0 to * Times**

description: The **Local_Class** class defines a user class, a collection of attributes in a local data dictionary.

role: **Concrete**

attribute: **description** value: *value*

attribute: **name** value: *value*

- **Local_Association - Occurs 1 to * Times**

description: The **Local_Association** class defines the membership between a class and an attribute in a local data dictionary.

role: **Concrete**

attribute: **constant_value** value: *value*

attribute: **local_attribute_id** value: *value*

attribute: **maximum_occurrences** value: *value*

attribute: **minimum_occurrences** value: *value*

- **End Local_Association**

- **End Local_Class**

- **End Local_DD**

- **Package**

description: The **Package** class is an abstract class. It represents a Manifest Product and all related files logically grouped together for transfer. The **Package** class does not include the container in which the manifest and files are contained. This class has no subclasses and is not instantiated.

role: **Concrete**

- **Identification_Area_Manifest Occurs 1 Times**

description: The manifest identification area consists of attributes that identify and name a manifest.

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* Optional

attribute: **alternate_id** value: *value* Optional

attribute: **last_modification_date_time** value: *value* Optional

attribute: **product_subclass** value: *value* Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Manifest**

- **Cross_Reference_Area_Manifest - Occurs 0 to 1 Times**

description: **The manifest cross reference area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association**

- **End Reference_Entry**

- **End Cross_Reference_Area_Manifest**

- **File_Area_Manifest Occurs 1 Times**

description: **The File Area Manifest class describes a file that contains a character table that is compliant to a file generated from MD5 checksum software.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

- **Manifest Occurs 1 Times - Base_Class:Table_Base**

description: **The manifest class defines a table for file references.**
role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **2**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**
attribute: **reference_association_type** value: **has_member** Optional

- **Table_Record_Manifest Occurs 1 Times**

description: **The Table Record Manifest class defines the record for an MD5 checksum manifest table.**
role: **Concrete**

- **Table_Field_Checksum Occurs 1 Times**

description: **The Table Field Checksum class defines a table field that provides a file checksum.**
role: **Concrete**
attribute: **field_name** value: **MD5_checksum**
attribute: **field_number** value: **2** Optional
attribute: **field_data_type** value: **ASCII_MD5_Checksum**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** Optional
attribute: **field_description** value: **value** Optional

- **End Table_Field_Checksum**

- **Table_Field_File_Specification_Name Occurs 1 Times**

description: **The Table_Field_File_Specification_Name class defines a table field that provides a file name, file extension, and relative directory path to a product label.**
role: **Concrete**
attribute: **field_name** value: **file_specification_name**
attribute: **field_number** value: **2** Optional
attribute: **field_data_type** value: **ASCII_File_Specification_Name**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **dir1/dir2/file_name.file_extension** Optional
attribute: **field_description** value: **value** Optional

- **End Table_Field_File_Specification_Name**

- **End Table_Record_Manifest**

- **End Manifest**

- **End File_Area_Manifest**

- **End Package**

- **Product_Array_2D_Image**

description: **The Product Array 2D Image class defines a product consisting of at least one Array 2D Image and other associated data objects and metadata.**

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* Optional

attribute: **alternate_id** value: *value* Optional

attribute: **last_modification_date_time** value: *value* Optional

attribute: **product_subclass** value: *value* Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional

attribute: **data_set_name** value: *value* Optional

attribute: **instrument_name** value: *value* Optional

attribute: **instrument_host_name** value: *value* Optional

attribute: **full_name** value: *value* Optional

attribute: **investigation_name** value: *value* Optional

attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* Optional

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* Optional

attribute: **doi** value: *value* Optional

attribute: **reference_text** value: *value*

attribute: **url** value: *value* Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**
attribute: **local_identifier** value: **value** ^{Optional}
attribute: **title** value: **value**
attribute: **description** value: **value** ^{Optional}

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**

- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** ^{Optional}

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** ^{Optional}

attribute: **local_true_solar_time** value: **value** ^{Optional}

attribute: **mission_phase_name** value: **value** ^{Optional}

attribute: **orbit_number** value: **value** ^{Optional}
attribute: **planet_day_number** value: **value** ^{Optional}
attribute: **solar_longitude** value: **value** ^{Optional}
attribute: **spacecraft_clock_cnt_partition** value: **value** ^{Optional}
attribute: **spacecraft_clock_start_count** value: **value** ^{Optional}
attribute: **spacecraft_clock_stop_count** value: **value** ^{Optional}

- End Observation_Area

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}
attribute: **comment** value: **value** ^{Optional}
attribute: **creation_date_time** value: **value** ^{Optional}
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** ^{Optional}
attribute: **max_record_bytes** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **records** value: **value** ^{Optional}

- End File

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- End Array_Axis

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: **value**
attribute: **first_line_sample** value: **value**
attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**
attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- End Image_2D_Display

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar,**

byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- Array_Element Occurs 1 Times

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: Concrete

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Map
- Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base

description: The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.

role: Concrete

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 2

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- Array_Axis Occurs 2 Times

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: Concrete

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- Array_Element Occurs 1 Times

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: Concrete

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum
- Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base

description: **The Array 3D Image class is an extension of array_base and defines a three dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_3D_Image**

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- **End Array_Element**

- **End Array_3D_Movie**

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- **End Array_Element**

- **End Array_3D_Spectrum**

- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: **BINARY**
attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**
attribute: **name** value: **value** ^{Optional}
attribute: **offset** value: **value**

- **End Header**

- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **CSV**
attribute: **field_delimiter** value: **0x09, 0x2C, 0x3B, 0x7C**
attribute: **fields** value: **value**
attribute: **maximum_record_length** value: **value**
attribute: **offset** value: **value**
attribute: **record_delimiter** value: **0x0A, 0x0D, 0x0D_0x0A**
attribute: **records** value: **value**

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**

role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km,**

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: **value** ^{Optional}
attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** ^{Optional}
attribute: **maximum** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **mean** value: **value** ^{Optional}
attribute: **median** value: **value** ^{Optional}
attribute: **minimum** value: **value** ^{Optional}
attribute: **sample_bit_mask** value: **value** ^{Optional}
attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}
attribute: **invalid_constant** value: **value** ^{Optional}
attribute: **missing_constant** value: **value** ^{Optional}
attribute: **not_applicable_constant** value: **value** ^{Optional}
attribute: **saturated_constant** value: **value** ^{Optional}
attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- **End Stream_Text**

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1,**

airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg,

deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km,

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer,

microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel,

pixel/deg, rad, rad/s, s, sr, yr Optional

attribute: **field_description** value: **value** Optional

attribute: **bit_mask** value: **value** Optional

attribute: **bits** value: **value**

attribute: **start_bit** value: **value**

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: *value* Optional
 attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
 attribute: **field_location** value: *value*
 attribute: **field_length** value: *value*
 attribute: **field_format** value: *value* Optional
 attribute: **minimum_scaled_value** value: *value* Optional
 attribute: **maximum_scaled_value** value: *value* Optional
 attribute: **field_min_logical** value: *value* Optional
 attribute: **field_max_logical** value: *value* Optional
 attribute: **field_scaling_factor** value: *value* Optional
 attribute: **field_value_offset** value: *value* Optional
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
 attribute: **field_description** value: *value* Optional

- End Table_Binary_Grouped_Field
- End Table_Binary_Field_Sequence
- End Table_Binary_Grouped_Sequence
- End Table_Record_Binary_Grouped
- End Table_Binary_Grouped
- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**

role: **Concrete**

attribute: **local_identifier** value: *value*
 attribute: **comment** value: *value* Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **fields** value: *value*
 attribute: **offset** value: *value*
 attribute: **record_bytes** value: *value*
 attribute: **records** value: *value*

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**

role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: *value*
 attribute: **field_number** value: *value* Optional
 attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
 attribute: **field_location** value: *value*
 attribute: **field_length** value: *value*
 attribute: **field_format** value: *value* Optional
 attribute: **minimum_scaled_value** value: *value* Optional
 attribute: **maximum_scaled_value** value: *value* Optional
 attribute: **field_min_logical** value: *value* Optional
 attribute: **field_max_logical** value: *value* Optional
 attribute: **field_scaling_factor** value: *value* Optional

attribute: **field_value_offset** value: **value** Optional
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Character_Field**

- **End Table_Record_Character**

- **End Table_Character**

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.
role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional

attribute: **field_description** value: **value** Optional

- **End Table_Character_Grouped_Field**

- **End Table_Character_Field_Sequence**

- **End Table_Character_Grouped_Sequence**

- **End Table_Record_Character_Grouped**

- **End Table_Character_Grouped**

- **End File_Area_Observational**

- **End Product_Array_2D_Image**

- **Product_Array_3D_Image**

description: The Product Array 3D Image class defines a product consisting of at least one Array 3D image and other associated data objects and metadata.

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: The product identification area consists of attributes that identify and name a data product.

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional

attribute: **data_set_name** value: *value* Optional

attribute: **instrument_name** value: *value* Optional

attribute: **instrument_host_name** value: *value* Optional

attribute: **full_name** value: *value* Optional

attribute: **investigation_name** value: *value* Optional

attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* Optional

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: ALTERNATE, PRIMARY

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* Optional

attribute: **doi** value: *value* Optional

attribute: **reference_text** value: *value*

attribute: **url** value: *value* Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **title** value: *value*

attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: SENSOR, SOURCE

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components**

of the observing system.

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**
- **End Observing_System_Component**
- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**
- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** ^{Optional}

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** ^{Optional}

attribute: **local_true_solar_time** value: **value** ^{Optional}

attribute: **mission_phase_name** value: **value** ^{Optional}

attribute: **orbit_number** value: **value** ^{Optional}

attribute: **planet_day_number** value: **value** ^{Optional}

attribute: **solar_longitude** value: **value** ^{Optional}

attribute: **spacecraft_clock_cnt_partition** value: **value** ^{Optional}

attribute: **spacecraft_clock_start_count** value: **value** ^{Optional}

attribute: **spacecraft_clock_stop_count** value: **value** ^{Optional}

- **End Observation_Area**

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**
attribute: **local_identifier** value: **value** ^{Optional}
attribute: **comment** value: **value** ^{Optional}
attribute: **creation_date_time** value: **value** ^{Optional}
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** ^{Optional}
attribute: **max_record_bytes** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **records** value: **value** ^{Optional}

- **End File**

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**
attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**
attribute: **first_line** value: **value**
attribute: **first_line_sample** value: **value**
attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**
attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**
attribute: **scaling_factor** value: **value** ^{Optional}
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Map
- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum
- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **3**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: *value*
attribute: **sequence_number** value: *value*
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_3D_Image

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_3D_Movie

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_3D_Spectrum**

- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**

attribute: **name** value: *value* ^{Optional}

attribute: **offset** value: *value*

- **End Header**

- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **CSV**

attribute: **field_delimiter** value: **0x09, 0x2C, 0x3B, 0x7C**

attribute: **fields** value: *value*

attribute: **maximum_record_length** value: *value*
attribute: **offset** value: *value*
attribute: **record_delimiter** value: **0x0A, 0x0D, 0x0D_0x0A**
attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**
role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**
role: **Concrete**
attribute: **repetitions** value: *value* ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**
role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_format** value: *value* ^{Optional}

attribute: **minimum_scaled_value** value: *value* ^{Optional}

attribute: **maximum_scaled_value** value: *value* ^{Optional}

attribute: **field_min_logical** value: *value* ^{Optional}

attribute: **field_max_logical** value: *value* ^{Optional}

attribute: **field_scaling_factor** value: *value* ^{Optional}

attribute: **field_value_offset** value: *value* ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

attribute: **field_bytes** value: *value*

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* ^{Optional}

attribute: **maximum** value: *value* ^{Optional}

attribute: **md5_checksum** value: *value* ^{Optional}

attribute: **mean** value: *value* ^{Optional}

attribute: **median** value: *value* ^{Optional}

attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- **End Stream_Text**

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** Optional
attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional
 attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **description** value: **value** Optional
 attribute: **maximum** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **mean** value: **value** Optional
 attribute: **median** value: **value** Optional
 attribute: **minimum** value: **value** Optional
 attribute: **sample_bit_mask** value: **value** Optional
 attribute: **standard_deviation** value: **value** Optional

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** Optional
 attribute: **invalid_constant** value: **value** Optional
 attribute: **missing_constant** value: **value** Optional
 attribute: **not_applicable_constant** value: **value** Optional
 attribute: **saturated_constant** value: **value** Optional
 attribute: **unknown_constant** value: **value** Optional

- End Special_Constants

- End Table_Binary_Field

- End Table_Record_Binary

- End Table_Binary

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: BINARY
 attribute: **fields** value: **value**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.

role: Concrete

attribute: **repetitions** value: **value** Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.

role: Concrete

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.

role: Concrete

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

attribute: **bit_mask** value: **value** Optional

attribute: **bits** value: **value**

attribute: **start_bit** value: **value**

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: Concrete

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km,**

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- End Table_Binary_Grouped_Field
 - End Table_Binary_Field_Sequence
 - End Table_Binary_Grouped_Sequence
 - End Table_Record_Binary_Grouped
 - End Table_Binary_Grouped
- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**
role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**
role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**
attribute: **field_name** value: **value**
attribute: **field_number** value: **value** ^{Optional}
attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** ^{Optional}
attribute: **minimum_scaled_value** value: **value** ^{Optional}
attribute: **maximum_scaled_value** value: **value** ^{Optional}
attribute: **field_min_logical** value: **value** ^{Optional}
attribute: **field_max_logical** value: **value** ^{Optional}
attribute: **field_scaling_factor** value: **value** ^{Optional}
attribute: **field_value_offset** value: **value** ^{Optional}
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** ^{Optional}
attribute: **maximum** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}
attribute: **median** value: **value** ^{Optional}
attribute: **minimum** value: **value** ^{Optional}
attribute: **sample_bit_mask** value: **value** ^{Optional}
attribute: **standard_deviation** value: **value** ^{Optional}

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}
attribute: **invalid_constant** value: **value** ^{Optional}
attribute: **missing_constant** value: **value** ^{Optional}
attribute: **not_applicable_constant** value: **value** ^{Optional}
attribute: **saturated_constant** value: **value** ^{Optional}
attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants

- End Table_Character_Field

- End Table_Record_Character

- End Table_Character

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY,**

ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Character_Grouped_Field
 - End Table_Character_Field_Sequence
 - End Table_Character_Grouped_Sequence
 - End Table_Record_Character_Grouped
 - End Table_Character_Grouped
 - End File_Area_Observational
 - End Product_Array_3D_Image
-

- **Product_Array_3D_Movie**

description: **The Product Array 3D Movie defines a product consisting of at least one array 3D movie and other associated data objects and metadata.**
 role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**
 role: **Concrete**
 attribute: **logical_identifier** value: **value**
 attribute: **version_id** value: **value**
 attribute: **product_class** value: **value**
 attribute: **title** value: **value**
 attribute: **alternate_title** value: **value** Optional
 attribute: **alternate_id** value: **value** Optional
 attribute: **last_modification_date_time** value: **value** Optional
 attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**
 role: **Concrete**
 attribute: **target_name** value: **value** Optional
 attribute: **data_set_name** value: **value** Optional
 attribute: **instrument_name** value: **value** Optional
 attribute: **instrument_host_name** value: **value** Optional
 attribute: **full_name** value: **value** Optional
 attribute: **investigation_name** value: **value** Optional
 attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**
attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution
- End Subject_Area
- End Identification_Area_Product
- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**
role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**
attribute: **local_identifier** value: **value** Optional
attribute: **title** value: **value**
attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**
attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**
attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- End Observing_System_Reference_Entry
- End Observing_System_Component
- End Observing_System

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**
attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **curated_by_node**, **has_association**, **has_browse**, **has_calibration**, **has_document**, **has_geometry**, **has_instrument**, **has_instrument_host**, **has_investigation**, **has_node**, **has_personnel**, **has_primary_collection**, **has_primary_product**, **has_publication**, **has_resource**, **has_spice**, **has_target**, **has_thumbnail**

- End Product_Reference_Entry
- End Cross_Reference_Area_Product

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- End Mission_Area

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- End Node_Area

attribute: **comment** value: **value** Optional

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** Optional

attribute: **local_true_solar_time** value: **value** Optional

attribute: **mission_phase_name** value: **value** Optional

attribute: **orbit_number** value: **value** Optional

attribute: **planet_day_number** value: **value** Optional

attribute: **solar_longitude** value: **value** Optional

attribute: **spacecraft_clock_cnt_partition** value: **value** Optional

attribute: **spacecraft_clock_start_count** value: **value** Optional

attribute: **spacecraft_clock_stop_count** value: **value** Optional

- End Observation_Area

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: **value**

attribute: **first_line_sample** value: **value**

attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**

attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants
- End Array_2D_Image
- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- End Array_Element
- End Array_2D_Map
- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_2D_Spectrum

- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Image
- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **3**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Movie
- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **3**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: *value*
attribute: **sequence_number** value: *value*
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum

- **Header - Occurs 0 to * Times**

description: The Header class describes a data object header.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: BINARY

attribute: **external_standard_id** value: FITS, ISIS, ODL, VICAR

attribute: **name** value: *value* ^{Optional}

attribute: **offset** value: *value*

- End Header
- **Stream_Delimited - Occurs 0 to * Times**

description: The Stream Delimited class defines a simple spreadsheet.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: CHARACTER

attribute: **external_standard_id** value: CSV

attribute: **field_delimiter** value: 0x09, 0x2C, 0x3B, 0x7C

attribute: **fields** value: *value*

attribute: **maximum_record_length** value: *value*

attribute: **offset** value: *value*

attribute: **record_delimiter** value: 0x0A, 0x0D, 0x0D_0x0A

attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.

role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.

role: **Concrete**

attribute: **repetitions** value: *value* ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: The **Stream Delimited Field Sequence** class is a component of the **grouped stream delimited (spreadsheet)** class. It defines a set of fields or a **nested set of fields**.

role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: The **Stream Delimited Field** class is a component of the **stream delimited (spreadsheet) record** class and defines a field of the **record**.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: The **Object Statistics** class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: The **Special Constants** class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- End Special_Constants
 - End Stream_Delimited_Field
 - End Stream_Delimited_Field_Sequence
 - End Stream_Delimited_Grouped_Sequence
 - End Stream_Delimited_Record
 - End Stream_Delimited

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **value**

attribute: **offset** value: **value**

- End Stream_Text

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **maximum** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **mean** value: **value** Optional
attribute: **median** value: **value** Optional
attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.**

role: **Concrete**
 attribute: **field_name** value: **value**
 attribute: **field_number** value: **value** ^{Optional}
 attribute: **field_data_type** value: **Bit**
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** ^{Optional}
 attribute: **minimum_scaled_value** value: **value** ^{Optional}
 attribute: **maximum_scaled_value** value: **value** ^{Optional}
 attribute: **field_min_logical** value: **value** ^{Optional}
 attribute: **field_max_logical** value: **value** ^{Optional}
 attribute: **field_scaling_factor** value: **value** ^{Optional}
 attribute: **field_value_offset** value: **value** ^{Optional}
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
 attribute: **field_description** value: **value** ^{Optional}
 attribute: **bit_mask** value: **value** ^{Optional}
 attribute: **bits** value: **value**
 attribute: **start_bit** value: **value**

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.**

role: **Concrete**
 attribute: **field_name** value: **value**
 attribute: **field_number** value: **value** ^{Optional}
 attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** ^{Optional}
 attribute: **minimum_scaled_value** value: **value** ^{Optional}
 attribute: **maximum_scaled_value** value: **value** ^{Optional}
 attribute: **field_min_logical** value: **value** ^{Optional}
 attribute: **field_max_logical** value: **value** ^{Optional}
 attribute: **field_scaling_factor** value: **value** ^{Optional}
 attribute: **field_value_offset** value: **value** ^{Optional}
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
 attribute: **field_description** value: **value** ^{Optional}

- **End Table_Binary_Grouped_Field**

- **End Table_Binary_Field_Sequence**

- **End Table_Binary_Grouped_Sequence**

- **End Table_Record_Binary_Grouped**

- **End Table_Binary_Grouped**

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character Occurs 1 Times**

description: The **Table Record Character** class is a component of the table class and defines a record of the table. This extension defines a character record.
role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: The **Table Character Field** class is a component of the table record class and defines a field of the record. This extension defines a character field.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI**, **ASCII_Boolean_TF**, **ASCII_DOI**, **ASCII_Date_DOY**, **ASCII_Date_Time_DOY**, **ASCII_Date_Time_UTC**, **ASCII_Date_Time_YMD**, **ASCII_Date_YMD**, **ASCII_File_Specification_Name**, **ASCII_Integer**, **ASCII_LID**, **ASCII_LIDVID**, **ASCII_MD5_Checksum**, **ASCII_NonNegative_Integer**, **ASCII_Numeric_Base16**, **ASCII_Numeric_Base2**, **ASCII_Real**, **ASCII_Short_String_Collapsed**, **ASCII_Short_String_Preserved**, **ASCII_Text_Preserved**, **ASCII_Time**, **ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU**, **Angstrom**, **DN**, **K**, **L**, **Pa**, **V**, **W*m⁻²*sr⁻¹**, **airmass**, **arcmin**, **arcsec**, **bar**, **byte**, **cm**, **cm/s**, **counts/bin**, **day**, **deg**, **deg/day**, **deg/s**, **degC**, **electron/DN**, **g**, **hPa**, **hr**, **hr**, **hz**, **kg**, **kilobits/s**, **km**, **km/pixel**, **km/s**, **m**, **m2**, **m3**, **m/pixel**, **m/s**, **mV**, **mbar**, **micrometer**, **microseconds**, **min**, **mm**, **mm/pixel**, **mol**, **mrad**, **ms**, **nm**, **none**, **pixel**, **pixel/deg**, **rad**, **rad/s**, **s**, **sr**, **yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: The **Object Statistics** class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: The **Special Constants** class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants
- End Table_Character_Field
- End Table_Record_Character
- End Table_Character
- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km,**

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- End Table_Character_Grouped_Field
 - End Table_Character_Field_Sequence
 - End Table_Character_Grouped_Sequence
 - End Table_Record_Character_Grouped
 - End Table_Character_Grouped
 - End File_Area_Observational
 - End Product_Array_3D_Movie
-

- **Product_Array_3D_Spectrum**

description: **The Product Array 3D Spectrum class defines a product consisting of at least one Array 3D spectrum and other associated data objects and metadata..**

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** ^{Optional}

attribute: **alternate_id** value: **value** ^{Optional}

attribute: **last_modification_date_time** value: **value** ^{Optional}

attribute: **product_subclass** value: **value** ^{Optional}

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** ^{Optional}

attribute: **data_set_name** value: **value** ^{Optional}

attribute: **instrument_name** value: **value** ^{Optional}

attribute: **instrument_host_name** value: **value** ^{Optional}

attribute: **full_name** value: **value** ^{Optional}

attribute: **investigation_name** value: **value** ^{Optional}

attribute: **observing_system_name** value: **value** ^{Optional}

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**

- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**
role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** Optional
attribute: **start_date_time** value: **value**
attribute: **stop_date_time** value: **value**
attribute: **local_mean_solar_time** value: **value** Optional
attribute: **local_true_solar_time** value: **value** Optional
attribute: **mission_phase_name** value: **value** Optional
attribute: **orbit_number** value: **value** Optional
attribute: **planet_day_number** value: **value** Optional
attribute: **solar_longitude** value: **value** Optional
attribute: **spacecraft_clock_cnt_partition** value: **value** Optional
attribute: **spacecraft_clock_start_count** value: **value** Optional
attribute: **spacecraft_clock_stop_count** value: **value** Optional

- **End Observation_Area**

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg,**

kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: **value**

attribute: **first_line_sample** value: **value**

attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**

attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- End Image_2D_Display

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- End Array_Element

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants

- End Array_2D_Image

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_2D_Map**

- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum
- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Image class is an extension of array_base and defines a three dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Image
- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_3D_Movie**

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum
- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**
role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **description** value: *value* ^{Optional}
attribute: **bytes** value: *value*
attribute: **encoding_type** value: BINARY
attribute: **external_standard_id** value: FITS, ISIS, ODL, VICAR
attribute: **name** value: *value* ^{Optional}
attribute: **offset** value: *value*

- End Header
- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**
role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **encoding_type** value: CHARACTER
attribute: **external_standard_id** value: CSV
attribute: **field_delimiter** value: 0x09, 0x2C, 0x3B, 0x7C
attribute: **fields** value: *value*
attribute: **maximum_record_length** value: *value*
attribute: **offset** value: *value*
attribute: **record_delimiter** value: 0x0A, 0x0D, 0x0D_0x0A
attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**
role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**
role: **Concrete**
attribute: **repetitions** value: *value* ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**
role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**
role: **Concrete**
attribute: **field_name** value: *value*

attribute: **field_number** value: **value** ^{Optional}
 attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
 attribute: **field_format** value: **value** ^{Optional}
 attribute: **minimum_scaled_value** value: **value** ^{Optional}
 attribute: **maximum_scaled_value** value: **value** ^{Optional}
 attribute: **field_min_logical** value: **value** ^{Optional}
 attribute: **field_max_logical** value: **value** ^{Optional}
 attribute: **field_scaling_factor** value: **value** ^{Optional}
 attribute: **field_value_offset** value: **value** ^{Optional}
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
 attribute: **field_description** value: **value** ^{Optional}
 attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **description** value: **value** ^{Optional}
 attribute: **maximum** value: **value** ^{Optional}
 attribute: **md5_checksum** value: **value** ^{Optional}
 attribute: **mean** value: **value** ^{Optional}
 attribute: **median** value: **value** ^{Optional}
 attribute: **minimum** value: **value** ^{Optional}
 attribute: **sample_bit_mask** value: **value** ^{Optional}
 attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}
 attribute: **invalid_constant** value: **value** ^{Optional}
 attribute: **missing_constant** value: **value** ^{Optional}
 attribute: **not_applicable_constant** value: **value** ^{Optional}
 attribute: **saturated_constant** value: **value** ^{Optional}
 attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- **End Stream_Text**

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

attribute: **bit_mask** value: *value* ^{Optional}

attribute: **bits** value: *value*

attribute: **start_bit** value: *value*

- End Table_Binary_Grouped_Bit_Field

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* ^{Optional}

attribute: **field_data_type** value: Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* ^{Optional}

attribute: **minimum_scaled_value** value: *value* ^{Optional}

attribute: **maximum_scaled_value** value: *value* ^{Optional}

attribute: **field_min_logical** value: *value* ^{Optional}

attribute: **field_max_logical** value: *value* ^{Optional}

attribute: **field_scaling_factor** value: *value* ^{Optional}

attribute: **field_value_offset** value: *value* ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

- End Table_Binary_Grouped_Field

- End Table_Binary_Field_Sequence

- End Table_Binary_Grouped_Sequence

- End Table_Record_Binary_Grouped

- End Table_Binary_Grouped

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: The Table Character class is an extension of table base and defines a simple character table.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: CHARACTER

attribute: **fields** value: *value*

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

- **Table_Record_Character Occurs 1 Times**

description: The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.

role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Character_Field**

- **End Table_Record_Character**

- **End Table_Character**

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**
role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Character_Grouped_Field**

- **End Table_Character_Field_Sequence**

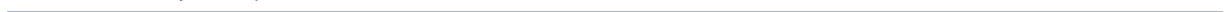
- **End Table_Character_Grouped_Sequence**

- **End Table_Record_Character_Grouped**

- **End Table_Character_Grouped**

- **End File_Area_Observational**

- **End Product_Array_3D_Spectrum**



- **Product_Attribute_Definition**

description: **The Product Attribute Definition provides an attribute definition in XML encoding.**
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Cross_Reference_Area - Occurs 0 to 1 Times**

description: **The cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar**

product.

role: **Concrete**

attribute: **observing_system_component_type** value: SENSOR, SOURCE

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: has_association, has_instrument, has_instrument_host

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: has_association

- **End Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **doi** value: **value** ^{Optional}

attribute: **reference_text** value: **value**

attribute: **url** value: **value** ^{Optional}

- **End Bibliographic_Reference**

- **End Cross_Reference_Area**

- **Attribute_Definition Occurs 1 Times**

description: **The Attribute Definition class defines an attribute in the data dictionary.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **title** value: **value**

attribute: **is_enumerated_flag** value: F, T

attribute: **class_name** value: **value**

attribute: **registration_authority_id** value: **value**

attribute: **steward_id** value: **value**

attribute: **name_space_id** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **registered_by** value: **value**

attribute: **submitter_id** value: **value**

attribute: **data_element_concept** value: **value**

- **Terminological_Entry - Occurs 1 to * Times**

description: **The terminological_entry class provides the name (designation) and definition of the attribute in a specified natural language.**

role: **Concrete**

attribute: **designation** value: *value*
attribute: **definition** value: *value*
attribute: **language** value: **English**

- End Terminological_Entry
- **Value_Domain - Occurs 0 to 1 Times**

description: The **value_domain** class defines the permissible values allowed. These may be enumerated or non-enumerated values.

role: **Concrete**

attribute: **default_unit_id** value: *value* Optional
attribute: **data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
attribute: **formation_rule** value: *value* Optional
attribute: **minimum_characters** value: *value* Optional
attribute: **maximum_characters** value: *value* Optional
attribute: **minimum_value** value: *value* Optional
attribute: **maximum_value** value: *value* Optional
attribute: **pattern** value: *value* Optional
attribute: **unit_of_measure_name** value: *value* Optional
attribute: **conceptual_domain** value: *value* Optional

- **Permissible_Value - Occurs 0 to 1 Times**

description: The **permissible_value** class lists the permissible values allowed and optionally their meanings.

role: **Concrete**

attribute: **value** value: *value*
attribute: **value_meaning** value: *value* Optional
attribute: **begin_date** value: *value*
attribute: **end_date** value: *value*

- End Permissible_Value
 - End Value_Domain
 - End Attribute_Definition
 - End Product_Attribute_Definition
-

• **Product_Browse**

description: The **Product Browse** class defines a product consisting of one encoded byte stream digital object.
role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: The **product identification area** consists of attributes that identify and name a data product.

role: **Concrete**

attribute: **logical_identifier** value: *value*
attribute: **version_id** value: *value*
attribute: **product_class** value: *value*
attribute: **title** value: *value*
attribute: **alternate_title** value: *value* Optional
attribute: **alternate_id** value: *value* Optional
attribute: **last_modification_date_time** value: *value* Optional
attribute: **product_subclass** value: *value* Optional

- **Subject_Area Occurs 1 Times**

description: The **Subject Area** provides one or more topics associated with the identifiable using **keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional
attribute: **data_set_name** value: *value* Optional

attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **title** value: **value**
attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- End Observing_System_Component
- End Observing_System

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- End Product_Reference_Entry
- End Cross_Reference_Area_Product

- **File_Area Occurs 1 Times**

description: **The File Area class describes a file and one or more tagged_data_objects contained within the file.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- End File

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- End Array_Axis

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**
attribute: **first_line** value: **value**
attribute: **first_line_sample** value: **value**
attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**
attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** Optional

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **value_offset** value: **value** Optional

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_2D_Map

- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 2

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum
- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Image
- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Movie

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum

- **Encoded_Image - Occurs 0 to * Times**

description: **The Encoded Image class, a subclass of Encoded Byte stream is used for ancillary images in standard formats, such as JPEG.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **GIF, JPEG, PDF, TIFF**

attribute: **offset** value: *value*

- **End Encoded_Image**

- **File_PDF - Occurs 0 to * Times**

description: **The File PDF class describes a PDF encoded byte stream.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **PDF**

attribute: **offset** value: *value*

- **End File_PDF**

- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **description** value: *value* Optional

attribute: **bytes** value: *value*

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**

attribute: **name** value: *value* Optional

attribute: **offset** value: *value*

- **End Header**

- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **CSV**

attribute: **field_delimiter** value: **0x09, 0x2C, 0x3B, 0x7C**

attribute: **fields** value: *value*

attribute: **maximum_record_length** value: *value*

attribute: **offset** value: *value*

attribute: **record_delimiter** value: **0x0A, 0x0D, 0x0D_0x0A**

attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**

role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: *value* Optional

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**
role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- End Special_Constants
 - End Stream_Delimited_Field
 - End Stream_Delimited_Field_Sequence
 - End Stream_Delimited_Grouped_Sequence
 - End Stream_Delimited_Record
 - End Stream_Delimited

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: *value*

attribute: **offset** value: *value*

- End Stream_Text

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* Optional

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: *value*

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* Optional

attribute: **minimum_scaled_value** value: *value* Optional

attribute: **maximum_scaled_value** value: *value* Optional

attribute: **field_min_logical** value: *value* Optional

attribute: **field_max_logical** value: *value* Optional

attribute: **field_scaling_factor** value: *value* Optional

attribute: **field_value_offset** value: *value* Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, Hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: *value* Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **maximum** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **mean** value: **value** Optional
attribute: **median** value: **value** Optional
attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.**

role: **Concrete**
 attribute: **field_name** value: **value**
 attribute: **field_number** value: **value** Optional
 attribute: **field_data_type** value: **Bit**
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
 attribute: **field_description** value: **value** Optional
 attribute: **bit_mask** value: **value** Optional
 attribute: **bits** value: **value**
 attribute: **start_bit** value: **value**

- End Table_Binary_Grouped_Bit_Field

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.**

role: **Concrete**
 attribute: **field_name** value: **value**
 attribute: **field_number** value: **value** Optional
 attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Binary_Grouped_Field

- End Table_Binary_Field_Sequence

- End Table_Binary_Grouped_Sequence

- End Table_Record_Binary_Grouped

- End Table_Binary_Grouped

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: *value*
attribute: **offset** value: *value*
attribute: **record_bytes** value: *value*
attribute: **records** value: *value*

- **Table_Record_Character Occurs 1 Times**

description: The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.
role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* Optional

attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* Optional

attribute: **minimum_scaled_value** value: *value* Optional

attribute: **maximum_scaled_value** value: *value* Optional

attribute: **field_min_logical** value: *value* Optional

attribute: **field_max_logical** value: *value* Optional

attribute: **field_scaling_factor** value: *value* Optional

attribute: **field_value_offset** value: *value* Optional

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m⁻²*sr⁻¹, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional

attribute: **field_description** value: *value* Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* Optional

attribute: **maximum** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **mean** value: *value* Optional

attribute: **median** value: *value* Optional

attribute: **minimum** value: *value* Optional

attribute: **sample_bit_mask** value: *value* Optional

attribute: **standard_deviation** value: *value* Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: *value* Optional

attribute: **invalid_constant** value: *value* Optional

attribute: **missing_constant** value: *value* Optional

attribute: **not_applicable_constant** value: *value* Optional

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants
- End Table_Character_Field
- End Table_Record_Character
- End Table_Character
- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km,**

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- End Table_Character_Grouped_Field
 - End Table_Character_Field_Sequence
 - End Table_Character_Grouped_Sequence
 - End Table_Record_Character_Grouped
 - End Table_Character_Grouped
 - End File_Area
 - End Product_Browse
-

• Product_Bundle

description: **Product Bundle** is a cluster product and has a table of references to one or more collections.
role: **Concrete**

• Identification_Area_Bundle Occurs 1 Times

description: **The bundle identification area consists of attributes that identify and name a bundle.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** ^{Optional}

attribute: **alternate_id** value: **value** ^{Optional}

attribute: **last_modification_date_time** value: **value** ^{Optional}

attribute: **product_subclass** value: **value** ^{Optional}

• Subject_Area - Occurs 0 to 1 Times

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** ^{Optional}

attribute: **data_set_name** value: **value** ^{Optional}

attribute: **instrument_name** value: **value** ^{Optional}

attribute: **instrument_host_name** value: **value** ^{Optional}

attribute: **full_name** value: **value** ^{Optional}

attribute: **investigation_name** value: **value** ^{Optional}

attribute: **observing_system_name** value: **value** ^{Optional}

• Name_Resolution - Occurs 0 to * Times

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

• End Name_Resolution

• End Subject_Area

• End Identification_Area_Bundle

• Cross_Reference_Area_Bundle - Occurs 0 to 1 Times

description: **The bundle cross reference area provides references to associated registered products.**
role: **Concrete**

• Reference_Entry - Occurs 0 to * Times

description: **The Reference Entry class provides a reference and type information about the reference.**

The reference is to a product.

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association**

- End Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference

- End Cross_Reference_Area_Bundle

- **Bundle_Member_Entry - Occurs 1 to * Times**

description: **The Bundle Member Entry class provides a member reference to a collection.**

role: **Concrete**

attribute: **file_specification_name** value: **value**

attribute: **lid_reference** value: **value**

attribute: **reference_association_type** value: **has_browse_collection, has_calibration_collection, has_context_collection, has_data_collection, has_document_collection, has_geometry_collection, has_member_collection, has_miscellaneous_collection, has_spice_collection, has_xml_schema_collection**

- End Bundle_Member_Entry

- End Product_Bundle
-

- **Product_Citation**

description: **A Citation product provides reference information about a document.**

role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Cross_Reference_Area_Context - Occurs 0 to 1 Times**

description: **The context cross reference area provides references to associated registered products.**

role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Citation Occurs 1 Times**

description: **The Citation class provides text to be used for quoting an artifact as an authoritative source.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **citation_text** value: **value**

attribute: **description** value: **value** Optional

- **End Citation**

- **End Product_Citation**

- **Product_Data_Set_PDS3**

description: **The Data Set PDS3 product is used to create proxy labels for the data sets in the PDS3 Data Set catalog.**

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**

role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Bundle_Member_Entry - Occurs 1 to * Times**

description: **The Bundle Member Entry class provides a member reference to a collection.**

role: **Concrete**

attribute: **file_specification_name** value: *value*

attribute: **lid_reference** value: *value*

attribute: **reference_association_type** value: **has_browse_collection, has_calibration_collection, has_context_collection, has_data_collection, has_document_collection, has_geometry_collection, has_member_collection, has_miscellaneous_collection, has_spice_collection, has_xml_schema_collection**

- **End Bundle_Member_Entry**

- **Data_Set_PDS3 Occurs 1 Times**

description: **The Data Set PDS3 class is used to capture the data set information from the PDS3 Data Set Catalog.**

role: **Concrete**

attribute: **data_set_id** value: *value*

attribute: **data_set_name** value: *value*

attribute: **data_set_release_date** value: *value*

attribute: **start_date_time** value: *value*

attribute: **stop_date_time** value: *value*

attribute: **producer_full_name** value: *value*

attribute: **citation_text** value: *value*

attribute: **data_set_terse_desc** value: *value*

attribute: **abstract_desc** value: *value*

attribute: **confidence_level_note** value: *value*

attribute: **archive_status** value: **ARCHIVED, ARCHIVED_ACCUMULATING, IN_LIEN_RESOLUTION, IN_LIEN_RESOLUTION_ACCUMULATING, IN_PEER_REVIEW, IN_PEER_REVIEW_ACCUMULATING, IN_QUEUE, IN_QUEUE_ACCUMULATING, LOCALLY_ARCHIVED, LOCALLY_ARCHIVED_ACCUMULATING, PRE_PEER_REVIEW, PRE_PEER_REVIEW_ACCUMULATING, SAFED, SUPERSEDED** ^{Optional}

attribute: **description** value: *value*

- **End Data_Set_PDS3**

- **End Product_Data_Set_PDS3**

- **Product_Document**

description: **A Product Document is a product consisting of a single logical document that may be comprised of one or more document formats.**

role: **Concrete**

- **Identification_Area_Document Occurs 1 Times**

description: **The document identification area consists of attributes that identify and name a document product.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* ^{Optional}

attribute: **alternate_id** value: *value* ^{Optional}

attribute: **last_modification_date_time** value: *value* ^{Optional}

attribute: **product_subclass** value: **AAREADME, ERRATA, Programmers_Manual, SIS, Users_Manual, example.DPH**

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* ^{Optional}

attribute: **data_set_name** value: *value* ^{Optional}

attribute: **instrument_name** value: *value* ^{Optional}

attribute: **instrument_host_name** value: *value* ^{Optional}

attribute: **full_name** value: *value* Optional
attribute: **investigation_name** value: *value* Optional
attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* Optional

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Document**

- **Cross_Reference_Area_Document - Occurs 0 to 1 Times**

description: **The document cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **title** value: *value*

attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: *value* Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: *value* Optional

attribute: **reference_association_type** value: **has_association**

- **End Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- End Cross_Reference_Area_Document

- **Document_Format_Set - Occurs 1 to * Times**

description: **The Document Format Set class is a set consisting of a document format and associated files.**

role: **Concrete**

- **Document_File - Occurs 1 to * Times**

description: **The Document File class describes a file which is a part of a document.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **directory_path_name** value: **value** Optional

attribute: **encoding_type** value: **BINARY, CHARACTER**

attribute: **external_standard_id** value: **ENCAPSULATED_POSTSCRIPT, GIF, HTML, JPG, LaTeX, MICROSOFT_WORD, PDF, PDF-A, PNG, POSTSCRIPT, RICH_TEXT, TEXT, TIFF**

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End Document_File

- **Document_Format Occurs 1 Times**

description: **The Document Format provides a description of a variant of a logical document that is stored in a specific format. For example the PDS Standards Reference has HTML and PDF formatted versions.**

role: **Concrete**

attribute: **description** value: **value** Optional

attribute: **format_type** value: **HTML, PDF-A, TEXT**

attribute: **starting_point_identifier** value: **value** Optional

- End Document_Format
- End Document_Format_Set

- **Document_Desc Occurs 1 Times**

description: **The Document_Desc class describes a document.**

role: **Concrete**

attribute: **description** value: **value** Optional

attribute: **acknowledgement_text** value: **value** Optional

attribute: **author_list** value: **value** Optional

attribute: **copyright** value: **value** Optional

attribute: **document_title** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **editor_list** value: **value** Optional

attribute: **publication_date** value: **value**

attribute: **revision_id** value: **value** Optional

- End Document_Desc
 - End Product_Document
-

- **Product_Instrument**

description: **An Instrument product describes an instrument.**
role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**
role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**
role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**
attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**
attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**
- **End Cross_Reference_Area_Context**

- **Instrument Occurs 1 Times**

description: **The Instrument class provides a description of a physical object that collects data.**

role: **Concrete**

attribute: **description** value: **value** Optional

- **End Instrument**
 - **End Product_Instrument**
-

- **Product_Instrument_Host**

description: **An Instrument Host product describes an instrument host.**

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**
- **End Subject_Area**
- **End Identification_Area_Product**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **doi** value: **value** ^{Optional}

attribute: **reference_text** value: **value**

attribute: **url** value: **value** ^{Optional}

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Instrument_Host Occurs 1 Times**

description: **The Instrument Host class provides a description of the physical object upon which an instrument is mounted.**

role: **Concrete**

attribute: **description** value: **value** ^{Optional}

- **End Instrument_Host**

- **End Product_Instrument_Host**

- **Product_Investigation**

description: **The Investigation product describes an investigation.**
role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** ^{Optional}

attribute: **alternate_id** value: **value** ^{Optional}

attribute: **last_modification_date_time** value: **value** ^{Optional}

attribute: **product_subclass** value: **value** ^{Optional}

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**
role: **Concrete**
attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**
role: **Concrete**
attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**
role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Investigation Occurs 1 Times**

description: **The Investigation class is the abstract parent class for all activities involved in the collection of data.**
role: **Concrete**
attribute: **description** value: **value**
attribute: **objectives_summary** value: **value**
attribute: **start_date** value: **value**
attribute: **stop_date** value: **value**

- **End Investigation**

- **End Product_Investigation**

- **Product_Mission**

description: **An Mission product describes a mission.**
role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**
role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**
role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**
role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**
role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered**

with the PDS.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* ^{Optional}

attribute: **doi** value: *value* ^{Optional}

attribute: **reference_text** value: *value*

attribute: **url** value: *value* ^{Optional}

- **End Bibliographic_Reference**
- **End Cross_Reference_Area_Context**

- **Mission Occurs 1 Times**

description: **The Mission class describes an activity involved in the collection of data.**

role: **Concrete**

attribute: **description** value: *value*

attribute: **objectives_summary** value: *value*

attribute: **start_date** value: *value*

attribute: **stop_date** value: *value*

- **End Mission**
 - **End Product_Mission**
-

- **Product_Node**

description: **A node product describes a node.**

role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* ^{Optional}

attribute: **alternate_id** value: *value* ^{Optional}

attribute: **last_modification_date_time** value: *value* ^{Optional}

attribute: **product_subclass** value: *value* ^{Optional}

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* ^{Optional}

attribute: **data_set_name** value: *value* ^{Optional}

attribute: **instrument_name** value: *value* ^{Optional}

attribute: **instrument_host_name** value: *value* ^{Optional}

attribute: **full_name** value: *value* ^{Optional}

attribute: **investigation_name** value: *value* ^{Optional}

attribute: **observing_system_name** value: *value* ^{Optional}

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* ^{Optional}

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**
- **End Subject_Area**

- End Identification_Area

- **Cross_Reference_Area_Context - Occurs 0 to 1 Times**

description: **The context cross reference area provides references to associated registered products.**
 role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- End Context_Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference

- End Cross_Reference_Area_Context

- **Node Occurs 1 Times**

description: **The Node class provides a description of a conceptual object that provides local governance within the federated Planetary Data System.**

role: **Concrete**

attribute: **node_name** value: **Engineering, Geosciences, Imaging, Navigation_Ancillary_Information_Facility, Planetary_Atmospheres, Planetary_Plasma_Interactions, Planetary_Rings, Radio_Science, Small_Bodies**

attribute: **description** value: **value** Optional

attribute: **institution_name** value: **value**

- End Node

- End Product_Node
-

- **Product_Non_Specific**

description: **The Product Non Specific class defines a template for any data product.**

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components**

of the observing system.

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**
- **End Observing_System_Component**
- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**
- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** ^{Optional}

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** ^{Optional}

attribute: **local_true_solar_time** value: **value** ^{Optional}

attribute: **mission_phase_name** value: **value** ^{Optional}

attribute: **orbit_number** value: **value** ^{Optional}

attribute: **planet_day_number** value: **value** ^{Optional}

attribute: **solar_longitude** value: **value** ^{Optional}

attribute: **spacecraft_clock_cnt_partition** value: **value** ^{Optional}

attribute: **spacecraft_clock_start_count** value: **value** ^{Optional}

attribute: **spacecraft_clock_stop_count** value: **value** ^{Optional}

- **End Observation_Area**

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**
attribute: **local_identifier** value: **value** ^{Optional}
attribute: **comment** value: **value** ^{Optional}
attribute: **creation_date_time** value: **value** ^{Optional}
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** ^{Optional}
attribute: **max_record_bytes** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}
attribute: **records** value: **value** ^{Optional}

- **End File**

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**
attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**
attribute: **first_line** value: **value**
attribute: **first_line_sample** value: **value**
attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**
attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**
attribute: **scaling_factor** value: **value** ^{Optional}
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Map
- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: **value**
attribute: **name** value: **value**
attribute: **sequence_number** value: **value**
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: **value** ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum
- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **axes** value: **3**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_3D_Image

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_3D_Movie

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_3D_Spectrum**

- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**

attribute: **name** value: *value* ^{Optional}

attribute: **offset** value: *value*

- **End Header**

- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **CSV**

attribute: **field_delimiter** value: **0x09, 0x2C, 0x3B, 0x7C**

attribute: **fields** value: *value*

attribute: **maximum_record_length** value: *value*
attribute: **offset** value: *value*
attribute: **record_delimiter** value: **0x0A, 0x0D, 0x0D_0x0A**
attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**
role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**
role: **Concrete**
attribute: **repetitions** value: *value* ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**
role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_format** value: *value* ^{Optional}

attribute: **minimum_scaled_value** value: *value* ^{Optional}

attribute: **maximum_scaled_value** value: *value* ^{Optional}

attribute: **field_min_logical** value: *value* ^{Optional}

attribute: **field_max_logical** value: *value* ^{Optional}

attribute: **field_scaling_factor** value: *value* ^{Optional}

attribute: **field_value_offset** value: *value* ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

attribute: **field_bytes** value: *value*

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* ^{Optional}

attribute: **maximum** value: *value* ^{Optional}

attribute: **md5_checksum** value: *value* ^{Optional}

attribute: **mean** value: *value* ^{Optional}

attribute: **median** value: *value* ^{Optional}

attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- **End Stream_Text**

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** Optional
attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional
 attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **description** value: **value** Optional
 attribute: **maximum** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **mean** value: **value** Optional
 attribute: **median** value: **value** Optional
 attribute: **minimum** value: **value** Optional
 attribute: **sample_bit_mask** value: **value** Optional
 attribute: **standard_deviation** value: **value** Optional

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** Optional
 attribute: **invalid_constant** value: **value** Optional
 attribute: **missing_constant** value: **value** Optional
 attribute: **not_applicable_constant** value: **value** Optional
 attribute: **saturated_constant** value: **value** Optional
 attribute: **unknown_constant** value: **value** Optional

- End Special_Constants

- End Table_Binary_Field

- End Table_Record_Binary

- End Table_Binary

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: BINARY
 attribute: **fields** value: **value**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.

role: Concrete

attribute: **repetitions** value: *value* Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.

role: Concrete

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.

role: Concrete

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* Optional

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* Optional

attribute: **minimum_scaled_value** value: *value* Optional

attribute: **maximum_scaled_value** value: *value* Optional

attribute: **field_min_logical** value: *value* Optional

attribute: **field_max_logical** value: *value* Optional

attribute: **field_scaling_factor** value: *value* Optional

attribute: **field_value_offset** value: *value* Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: *value* Optional

attribute: **bit_mask** value: *value* Optional

attribute: **bits** value: *value*

attribute: **start_bit** value: *value*

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: Concrete

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* Optional

attribute: **minimum_scaled_value** value: *value* Optional

attribute: **maximum_scaled_value** value: *value* Optional

attribute: **field_min_logical** value: *value* Optional

attribute: **field_max_logical** value: *value* Optional

attribute: **field_scaling_factor** value: *value* Optional

attribute: **field_value_offset** value: *value* Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hr, hz, kg, kilobits/s, km,**

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- End Table_Binary_Grouped_Field
- End Table_Binary_Field_Sequence
- End Table_Binary_Grouped_Sequence
- End Table_Record_Binary_Grouped
- End Table_Binary_Grouped
- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**
role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**
role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** ^{Optional}
attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** ^{Optional}
attribute: **minimum_scaled_value** value: **value** ^{Optional}
attribute: **maximum_scaled_value** value: **value** ^{Optional}
attribute: **field_min_logical** value: **value** ^{Optional}
attribute: **field_max_logical** value: **value** ^{Optional}
attribute: **field_scaling_factor** value: **value** ^{Optional}
attribute: **field_value_offset** value: **value** ^{Optional}
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** ^{Optional}
attribute: **maximum** value: **value** ^{Optional}
attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}
attribute: **median** value: **value** ^{Optional}
attribute: **minimum** value: **value** ^{Optional}
attribute: **sample_bit_mask** value: **value** ^{Optional}
attribute: **standard_deviation** value: **value** ^{Optional}

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}
attribute: **invalid_constant** value: **value** ^{Optional}
attribute: **missing_constant** value: **value** ^{Optional}
attribute: **not_applicable_constant** value: **value** ^{Optional}
attribute: **saturated_constant** value: **value** ^{Optional}
attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants

- End Table_Character_Field

- End Table_Record_Character

- End Table_Character

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY,**

ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Character_Grouped_Field
 - End Table_Character_Field_Sequence
 - End Table_Character_Grouped_Sequence
 - End Table_Record_Character_Grouped
 - End Table_Character_Grouped
 - End File_Area_Observational
 - End Product_Non_Specific
-

- **Product_PDS_Affiliate**

description: **A PDS Affiliate product describes a person in the role of an affiliate of the PDS.**
 role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution
- End Subject_Area
- End Identification_Area
- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- End Context_Reference_Entry
- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- End Cross_Reference_Area_Context

- **PDS_Affiliate Occurs 1 Times**

description: **The PDS Affiliate class provides a description of a person who has an association with the planetary science community and has access to PDS resources not normally allowed to the general public.**

role: **Concrete**

attribute: **node_name** value: **Engineering, Geosciences, HQ, Imaging, National_Space_Science_Data_Center, Navigation_Ancillary_Information_Facility, PDS_Management, Planetary_Atmospheres, Planetary_Plasma_Interactions, Planetary_Rings, Radio_Science, Small_Bodies, unk** Optional

attribute: **registration_date** value: **value**

attribute: **electronic_mail_address** value: **value** Optional

attribute: **sort_name** value: **value**

attribute: **description** value: **value** Optional

attribute: **affiliation_type** value: **Affiliate, Data_Provider, Manager, Technical_Staff**

attribute: **alternate_telephone_number** value: **value** Optional

attribute: **institution_name** value: **value**

attribute: **phone_book_flag** value: **value**

attribute: **postal_address_text** value: **value**

attribute: **telephone_number** value: **value** Optional

- End PDS_Affiliate
- End Product_PDS_Affiliate

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- **Product_PDS_Guest**

description: **A PDS Guest product describes a person in the role of guest user of the PDS.**
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**

role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- End Cross_Reference_Area_Context

- **PDS_Guest Occurs 1 Times**

description: **The PDS_Guest class is the default description of a person who has an association with the planetary science community and who has the most limited access to PDS resources.**

role: **Concrete**

attribute: **registration_date** value: **value**
attribute: **electronic_mail_address** value: **value** Optional
attribute: **sort_name** value: **value**
attribute: **description** value: **value** Optional

- End PDS_Guest
 - End Product_PDS_Guest
-

- **Product_Resource**

description: **A resource product describes a web resource.**
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution
- End Subject_Area
- End Identification_Area

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Resource Occurs 1 Times**

description: **The Resource class provides a description of a web resource. This class is a generic class and is used for resources not otherwise defined in the model.**

role: **Concrete**

attribute: **description** value: **value**

attribute: **url** value: **value**

- **End Resource**

- **End Product_Resource**

- **Product_SPICE_Kernel_Binary**

description: **The Product SPICE Kernel Text class defines a binary SPICE product.**
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using**

keywords, key phrases, or classification codes.

role: **Concrete**

attribute: **target_name** value: **value** ^{Optional}

attribute: **data_set_name** value: **value** ^{Optional}

attribute: **instrument_name** value: **value** ^{Optional}

attribute: **instrument_host_name** value: **value** ^{Optional}

attribute: **full_name** value: **value** ^{Optional}

attribute: **investigation_name** value: **value** ^{Optional}

attribute: **observing_system_name** value: **value** ^{Optional}

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **File_Area_SPICE_Kernel_Binary Occurs 1 Times**

description: **The File Area SPICE Kernel Text class describes a file that contains a SPICE Kernel Binary object.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** ^{Optional}

attribute: **comment** value: **value** ^{Optional}

attribute: **creation_date_time** value: **value** ^{Optional}

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** ^{Optional}

attribute: **max_record_bytes** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **records** value: **value** ^{Optional}

- **End File**

- **SPICE_Kernel_Binary Occurs 1 Times**

description: **The SPICE Kernel class describes a SPICE file.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **SPICE**

attribute: **kernel_type** value: **CK, DBK, DSK, EK, PCK, SPK**

attribute: **offset** value: **value**

- **End SPICE_Kernel_Binary**

- **End File_Area_SPICE_Kernel_Binary**

- **Cross_Reference_Area_Generic Occurs 1 Times**

description: **The cross reference area generic provides references for associated products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- End Bibliographic_Reference

- **Reference_Entry_Generic - Occurs 0 to * Times**

description: **The Reference Entry Generic class provides a reference and type information about the reference. The reference is to a product.**

role: **Abstract**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **value**

- End Reference_Entry_Generic
 - End Cross_Reference_Area_Generic
 - End Product_SPICE_Kernel_Binary
-

- **Product_SPICE_Kernel_Text**

description: **The Product SPICE Kernel Text class defines a text SPICE product.**
role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution
- End Subject_Area
- End Identification_Area

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**
role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**

- **End Cross_Reference_Area_Product**

- **File_Area_SPICE_Kernel_Text Occurs 1 Times**

description: **The File Area SPICE Kernel Text class describes a file that contains a SPICE Kernel Text object.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

- **SPICE_Kernel_Text Occurs 1 Times**

description: **The SPICE Kernel class describes a SPICE file.**
role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **SPICE**
attribute: **kernel_type** value: **EK, FK, IK, LSK, MK, PCK, SCLK**
attribute: **offset** value: **value**

- **End SPICE_Kernel_Text**

- **End File_Area_SPICE_Kernel_Text**

- **End Product_SPICE_Kernel_Text**

- **Product_Stream_Delimited**

description: **The Product Stream Delimited class defines a product consisting of at least one Stream Delimited file (Spreadsheet) and other associated data objects and metadata.**
role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**
role: **Concrete**

attribute: **logical_identifier** value: **value**
attribute: **version_id** value: **value**
attribute: **product_class** value: **value**
attribute: **title** value: **value**
attribute: **alternate_title** value: **value** Optional
attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type**

information about the reference. The reference is to a product.

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- End Product_Reference_Entry
- End Cross_Reference_Area_Product

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- End Mission_Area

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- End Node_Area

attribute: **comment** value: **value** Optional

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** Optional

attribute: **local_true_solar_time** value: **value** Optional

attribute: **mission_phase_name** value: **value** Optional

attribute: **orbit_number** value: **value** Optional

attribute: **planet_day_number** value: **value** Optional

attribute: **solar_longitude** value: **value** Optional

attribute: **spacecraft_clock_cnt_partition** value: **value** Optional

attribute: **spacecraft_clock_start_count** value: **value** Optional

attribute: **spacecraft_clock_stop_count** value: **value** Optional

- End Observation_Area

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: *value*

attribute: **first_line_sample** value: *value*

attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**

attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* ^{Optional}

attribute: **maximum** value: *value* ^{Optional}

attribute: **md5_checksum** value: *value* ^{Optional}

attribute: **mean** value: *value* ^{Optional}

attribute: **median** value: *value* ^{Optional}

attribute: **minimum** value: *value* ^{Optional}

attribute: **sample_bit_mask** value: *value* ^{Optional}

attribute: **standard_deviation** value: *value* ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: *value* ^{Optional}

attribute: **invalid_constant** value: *value* ^{Optional}

attribute: **missing_constant** value: *value* ^{Optional}

attribute: **not_applicable_constant** value: *value* ^{Optional}

attribute: **saturated_constant** value: *value* ^{Optional}

attribute: **unknown_constant** value: *value* ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_2D_Map**

- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_2D_Spectrum**

- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Image class is an extension of array_base and defines a three dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Image
- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: 3
attribute: **axis_order** value: FIRST_INDEX_FASTEST
attribute: **encoding_type** value: BINARY
attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*
attribute: **name** value: *value*
attribute: **sequence_number** value: *value*
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Movie
- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: 3
attribute: **axis_order** value: FIRST_INDEX_FASTEST
attribute: **encoding_type** value: BINARY
attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum
- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: BINARY

attribute: **external_standard_id** value: FITS, ISIS, ODL, VICAR

attribute: **name** value: *value* ^{Optional}

attribute: **offset** value: *value*

- End Header
- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: CHARACTER

attribute: **external_standard_id** value: CSV

attribute: **field_delimiter** value: 0x09, 0x2C, 0x3B, 0x7C

attribute: **fields** value: *value*

attribute: **maximum_record_length** value: *value*

attribute: **offset** value: *value*

attribute: **record_delimiter** value: 0x0A, 0x0D, 0x0D_0x0A

attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**

role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the**

grouped stream delimited (spreadsheet) class. It defines a set of fields.

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.

role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- End Special_Constants
- End Stream_Delimited_Field
- End Stream_Delimited_Field_Sequence
- End Stream_Delimited_Grouped_Sequence
- End Stream_Delimited_Record
- End Stream_Delimited

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- End Stream_Text

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** Optional
attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** Optional
attribute: **minimum_scaled_value** value: **value** Optional
attribute: **maximum_scaled_value** value: **value** Optional
attribute: **field_min_logical** value: **value** Optional
attribute: **field_max_logical** value: **value** Optional
attribute: **field_scaling_factor** value: **value** Optional
attribute: **field_value_offset** value: **value** Optional
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

attribute: **bit_mask** value: **value** Optional

attribute: **bits** value: **value**

attribute: **start_bit** value: **value**

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Binary_Grouped_Field**

- **End Table_Binary_Field_Sequence**

- **End Table_Binary_Grouped_Sequence**

- **End Table_Record_Binary_Grouped**

- **End Table_Binary_Grouped**

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**

role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**
- **End Table_Character_Field**
- **End Table_Record_Character**
- **End Table_Character**

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** Optional
attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** Optional
attribute: **minimum_scaled_value** value: **value** Optional
attribute: **maximum_scaled_value** value: **value** Optional
attribute: **field_min_logical** value: **value** Optional
attribute: **field_max_logical** value: **value** Optional
attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: *value* ^{Optional}
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
 attribute: **field_description** value: *value* ^{Optional}

- End Table_Character_Grouped_Field
 - End Table_Character_Field_Sequence
 - End Table_Character_Grouped_Sequence
 - End Table_Record_Character_Grouped
 - End Table_Character_Grouped
 - End File_Area_Observational
 - End Product_Stream_Delimited
-

• Product_Table_Binary

description: **The Product Table Binary class defines a product consisting of at least one Binary table and other associated data objects and metadata.**

role: **Concrete**

• Identification_Area_Product Occurs 1 Times

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* ^{Optional}

attribute: **alternate_id** value: *value* ^{Optional}

attribute: **last_modification_date_time** value: *value* ^{Optional}

attribute: **product_subclass** value: *value* ^{Optional}

• Subject_Area Occurs 1 Times

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* ^{Optional}

attribute: **data_set_name** value: *value* ^{Optional}

attribute: **instrument_name** value: *value* ^{Optional}

attribute: **instrument_host_name** value: *value* ^{Optional}

attribute: **full_name** value: *value* ^{Optional}

attribute: **investigation_name** value: *value* ^{Optional}

attribute: **observing_system_name** value: *value* ^{Optional}

• Name_Resolution - Occurs 0 to * Times

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* ^{Optional}

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: **ALTERNATE, PRIMARY**

• End Name_Resolution

• End Subject_Area

• End Identification_Area_Product

• Cross_Reference_Area_Product Occurs 1 Times

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**

- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**
role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**
role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** Optional
attribute: **start_date_time** value: **value**
attribute: **stop_date_time** value: **value**
attribute: **local_mean_solar_time** value: **value** Optional
attribute: **local_true_solar_time** value: **value** Optional
attribute: **mission_phase_name** value: **value** Optional
attribute: **orbit_number** value: **value** Optional
attribute: **planet_day_number** value: **value** Optional
attribute: **solar_longitude** value: **value** Optional
attribute: **spacecraft_clock_cnt_partition** value: **value** Optional
attribute: **spacecraft_clock_start_count** value: **value** Optional
attribute: **spacecraft_clock_stop_count** value: **value** Optional

- **End Observation_Area**

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**
attribute: **name** value: **value**

attribute: **sequence_number** value: **value**
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Image_2D_Display - Occurs 0 to 1 Times**

description: The Image_2D_Display class provides attributes to enable the display of a 2D image.

role: **Concrete**

attribute: **first_line** value: **value**

attribute: **first_line_sample** value: **value**

attribute: **line_display_direction** value: DOWN, LEFT, RIGHT, UP

attribute: **sample_display_direction** value: DOWN, LEFT, RIGHT, UP

- End Image_2D_Display

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants

- End Array_2D_Image

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**
role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_2D_Map**

- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- **End Array_Element**

- **End Array_2D_Spectrum**

- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- **End Array_Element**

- **End Array_3D_Image**

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_3D_Movie**

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum
- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**
role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **description** value: *value* ^{Optional}
attribute: **bytes** value: *value*
attribute: **encoding_type** value: BINARY
attribute: **external_standard_id** value: FITS, ISIS, ODL, VICAR
attribute: **name** value: *value* ^{Optional}
attribute: **offset** value: *value*

- End Header
- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**
role: **Concrete**
attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **encoding_type** value: CHARACTER
attribute: **external_standard_id** value: CSV
attribute: **field_delimiter** value: 0x09, 0x2C, 0x3B, 0x7C
attribute: **fields** value: *value*
attribute: **maximum_record_length** value: *value*
attribute: **offset** value: *value*
attribute: **record_delimiter** value: 0x0A, 0x0D, 0x0D_0x0A
attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**
role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**
role: **Concrete**
attribute: **repetitions** value: *value* ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**
role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**
role: **Concrete**
attribute: **field_name** value: *value*

attribute: **field_number** value: **value** ^{Optional}
 attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
 attribute: **field_format** value: **value** ^{Optional}
 attribute: **minimum_scaled_value** value: **value** ^{Optional}
 attribute: **maximum_scaled_value** value: **value** ^{Optional}
 attribute: **field_min_logical** value: **value** ^{Optional}
 attribute: **field_max_logical** value: **value** ^{Optional}
 attribute: **field_scaling_factor** value: **value** ^{Optional}
 attribute: **field_value_offset** value: **value** ^{Optional}
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
 attribute: **field_description** value: **value** ^{Optional}
 attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **description** value: **value** ^{Optional}
 attribute: **maximum** value: **value** ^{Optional}
 attribute: **md5_checksum** value: **value** ^{Optional}
 attribute: **mean** value: **value** ^{Optional}
 attribute: **median** value: **value** ^{Optional}
 attribute: **minimum** value: **value** ^{Optional}
 attribute: **sample_bit_mask** value: **value** ^{Optional}
 attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}
 attribute: **invalid_constant** value: **value** ^{Optional}
 attribute: **missing_constant** value: **value** ^{Optional}
 attribute: **not_applicable_constant** value: **value** ^{Optional}
 attribute: **saturated_constant** value: **value** ^{Optional}
 attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: CHARACTER
attribute: **external_standard_id** value: *value*
attribute: **offset** value: *value*

- End Stream_Text

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: The Table Binary class is an extension of table base and defines a simple binary table.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: BINARY

attribute: **fields** value: *value*

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

- **Table_Record_Binary Occurs 1 Times**

description: The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* ^{Optional}

attribute: **field_data_type** value: Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* ^{Optional}

attribute: **minimum_scaled_value** value: *value* ^{Optional}

attribute: **maximum_scaled_value** value: *value* ^{Optional}

attribute: **field_min_logical** value: *value* ^{Optional}

attribute: **field_max_logical** value: *value* ^{Optional}

attribute: **field_scaling_factor** value: *value* ^{Optional}

attribute: **field_value_offset** value: *value* ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* ^{Optional}

attribute: **maximum** value: *value* ^{Optional}

attribute: **md5_checksum** value: *value* ^{Optional}

attribute: **mean** value: *value* ^{Optional}

attribute: **median** value: *value* ^{Optional}

attribute: **minimum** value: *value* ^{Optional}

attribute: **sample_bit_mask** value: *value* ^{Optional}

attribute: **standard_deviation** value: *value* ^{Optional}

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
 attribute: **field_description** value: *value* ^{Optional}
 attribute: **bit_mask** value: *value* ^{Optional}
 attribute: **bits** value: *value*
 attribute: **start_bit** value: *value*

- End Table_Binary_Grouped_Bit_Field

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: **Concrete**

attribute: **field_name** value: *value*
 attribute: **field_number** value: *value* ^{Optional}
 attribute: **field_data_type** value: Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4
 attribute: **field_location** value: *value*
 attribute: **field_length** value: *value*
 attribute: **field_format** value: *value* ^{Optional}
 attribute: **minimum_scaled_value** value: *value* ^{Optional}
 attribute: **maximum_scaled_value** value: *value* ^{Optional}
 attribute: **field_min_logical** value: *value* ^{Optional}
 attribute: **field_max_logical** value: *value* ^{Optional}
 attribute: **field_scaling_factor** value: *value* ^{Optional}
 attribute: **field_value_offset** value: *value* ^{Optional}
 attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
 attribute: **field_description** value: *value* ^{Optional}

- End Table_Binary_Grouped_Field

- End Table_Binary_Field_Sequence

- End Table_Binary_Grouped_Sequence

- End Table_Record_Binary_Grouped

- End Table_Binary_Grouped

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: The Table Character class is an extension of table base and defines a simple character table.

role: **Concrete**

attribute: **local_identifier** value: *value*
 attribute: **comment** value: *value* ^{Optional}
 attribute: **encoding_type** value: CHARACTER
 attribute: **fields** value: *value*
 attribute: **offset** value: *value*
 attribute: **record_bytes** value: *value*
 attribute: **records** value: *value*

- **Table_Record_Character Occurs 1 Times**

description: The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.

role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Character_Field**

- **End Table_Record_Character**

- **End Table_Character**

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped** Occurs 1 Times

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**
role: **Concrete**

- **Table_Character_Grouped_Sequence** - Occurs 1 to * Times

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Character_Field_Sequence** - Occurs 1 to * Times

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field** - Occurs 0 to * Times

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **End Table_Character_Grouped_Field**

- **End Table_Character_Field_Sequence**

- **End Table_Character_Grouped_Sequence**

- **End Table_Record_Character_Grouped**

- **End Table_Character_Grouped**

- **End File_Area_Observational**

- **End Product_Table_Binary**



- **Product_Table_Binary_Grouped**

description: **The Product Table Binary Grouped class defines a product consisting of at least one Binary table with groups of repeating fields and other associated data objects and metadata.**
role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**

- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** Optional

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** Optional

attribute: **local_true_solar_time** value: *value* ^{Optional}
attribute: **mission_phase_name** value: *value* ^{Optional}
attribute: **orbit_number** value: *value* ^{Optional}
attribute: **planet_day_number** value: *value* ^{Optional}
attribute: **solar_longitude** value: *value* ^{Optional}
attribute: **spacecraft_clock_cnt_partition** value: *value* ^{Optional}
attribute: **spacecraft_clock_start_count** value: *value* ^{Optional}
attribute: **spacecraft_clock_stop_count** value: *value* ^{Optional}

- End Observation_Area

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: *value* ^{Optional}
attribute: **comment** value: *value* ^{Optional}
attribute: **creation_date_time** value: *value* ^{Optional}
attribute: **file_name** value: *value*
attribute: **file_size** value: *value* ^{Optional}
attribute: **max_record_bytes** value: *value* ^{Optional}
attribute: **md5_checksum** value: *value* ^{Optional}
attribute: **records** value: *value* ^{Optional}

- End File

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: **2**
attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*
attribute: **name** value: *value*
attribute: **sequence_number** value: *value*
attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- End Array_Axis

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: *value*
attribute: **first_line_sample** value: *value*
attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**
attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- End Image_2D_Display

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Map

- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 2

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum

- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_3D_Image**

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: Concrete

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Movie

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.

role: Concrete

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: Concrete

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: Concrete

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum

- **Header - Occurs 0 to * Times**

description: The Header class describes a data object header.

role: Concrete

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* Optional
attribute: **bytes** value: *value*
attribute: **encoding_type** value: **BINARY**
attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**
attribute: **name** value: *value* Optional
attribute: **offset** value: *value*

- **End Header**

- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**
role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **CSV**
attribute: **field_delimiter** value: **0x09, 0x2C, 0x3B, 0x7C**
attribute: **fields** value: *value*
attribute: **maximum_record_length** value: *value*
attribute: **offset** value: *value*
attribute: **record_delimiter** value: **0x0A, 0x0D, 0x0D_0x0A**
attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**
role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.**
role: **Concrete**
attribute: **repetitions** value: *value* Optional

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.**
role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: **The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.**
role: **Concrete**
attribute: **field_name** value: *value*
attribute: **field_number** value: *value* Optional
attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
attribute: **field_format** value: *value* Optional
attribute: **minimum_scaled_value** value: *value* Optional
attribute: **maximum_scaled_value** value: *value* Optional
attribute: **field_min_logical** value: *value* Optional
attribute: **field_max_logical** value: *value* Optional
attribute: **field_scaling_factor** value: *value* Optional
attribute: **field_value_offset** value: *value* Optional
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1,**

airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **value**

attribute: **offset** value: **value**

- **End Stream_Text**

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.
role: Concrete

- **Table_Binary_Field - Occurs 1 to * Times**

description: The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.

role: Concrete

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: Concrete

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: Concrete

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.

role: Concrete

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: *value*

attribute: **offset** value: *value*

attribute: **record_bytes** value: *value*

attribute: **records** value: *value*

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.

role: Concrete

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.

role: Concrete

attribute: **repetitions** value: *value* ^{Optional}

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.

role: Concrete

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.

role: Concrete

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* ^{Optional}

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* ^{Optional}

attribute: **minimum_scaled_value** value: *value* ^{Optional}

attribute: **maximum_scaled_value** value: *value* ^{Optional}

attribute: **field_min_logical** value: *value* ^{Optional}

attribute: **field_max_logical** value: *value* ^{Optional}

attribute: **field_scaling_factor** value: *value* ^{Optional}

attribute: **field_value_offset** value: *value* ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1,**

airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg,

deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km,

km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer,

microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel,

pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

attribute: **bit_mask** value: *value* ^{Optional}

attribute: **bits** value: *value*

attribute: **start_bit** value: *value*

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: **Concrete**
 attribute: **field_name** value: **value**
 attribute: **field_number** value: **value** Optional
 attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
 attribute: **field_description** value: **value** Optional

- End Table_Binary_Grouped_Field
- End Table_Binary_Field_Sequence
- End Table_Binary_Grouped_Sequence
- End Table_Record_Binary_Grouped
- End Table_Binary_Grouped
- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**

role: **Concrete**
 attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **fields** value: **value**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**

role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**
 attribute: **field_name** value: **value**
 attribute: **field_number** value: **value** Optional
 attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional
attribute: **field_scaling_factor** value: **value** Optional
attribute: **field_value_offset** value: **value** Optional
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **maximum** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **mean** value: **value** Optional
attribute: **median** value: **value** Optional
attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Character_Field**

- **End Table_Record_Character**

- **End Table_Character**

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: *value* ^{Optional}

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* ^{Optional}

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: *value*

attribute: **field_length** value: *value*

attribute: **field_format** value: *value* ^{Optional}

attribute: **minimum_scaled_value** value: *value* ^{Optional}

attribute: **maximum_scaled_value** value: *value* ^{Optional}

attribute: **field_min_logical** value: *value* ^{Optional}

attribute: **field_max_logical** value: *value* ^{Optional}

attribute: **field_scaling_factor** value: *value* ^{Optional}

attribute: **field_value_offset** value: *value* ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: *value* ^{Optional}

- **End Table_Character_Grouped_Field**

- **End Table_Character_Field_Sequence**

- **End Table_Character_Grouped_Sequence**

- **End Table_Record_Character_Grouped**

- **End Table_Character_Grouped**

- **End File_Area_Observational**

- **End Product_Table_Binary_Grouped**

- **Product_Table_Character**

description: **The Product Table Character class defines a product consisting of at least one character table and other associated data objects and metadata.**

role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: *value*

attribute: **version_id** value: *value*

attribute: **product_class** value: *value*

attribute: **title** value: *value*

attribute: **alternate_title** value: *value* ^{Optional}

attribute: **alternate_id** value: **value** Optional
attribute: **last_modification_date_time** value: **value** Optional
attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional
attribute: **data_set_name** value: **value** Optional
attribute: **instrument_name** value: **value** Optional
attribute: **instrument_host_name** value: **value** Optional
attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **title** value: **value**
attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**
- **End Observing_System_Component**
- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- **End Product_Reference_Entry**
- **End Cross_Reference_Area_Product**

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- **End Mission_Area**

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- **End Node_Area**

attribute: **comment** value: **value** ^{Optional}

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** ^{Optional}

attribute: **local_true_solar_time** value: **value** ^{Optional}

attribute: **mission_phase_name** value: **value** ^{Optional}

attribute: **orbit_number** value: **value** ^{Optional}

attribute: **planet_day_number** value: **value** ^{Optional}

attribute: **solar_longitude** value: **value** ^{Optional}

attribute: **spacecraft_clock_cnt_partition** value: **value** ^{Optional}

attribute: **spacecraft_clock_start_count** value: **value** ^{Optional}

attribute: **spacecraft_clock_stop_count** value: **value** ^{Optional}

- **End Observation_Area**

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- **End File**

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

- **End Array_Axis**

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: **value**

attribute: **first_line_sample** value: **value**

attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**

attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** Optional

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **value_offset** value: **value** Optional

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** ^{Optional}

attribute: **not_applicable_constant** value: **value** ^{Optional}

attribute: **saturated_constant** value: **value** ^{Optional}

attribute: **unknown_constant** value: **value** ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds,**

min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Map
- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 2

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_2D_Spectrum
- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Image class is an extension of array_base and defines a three dimensional image.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*
attribute: **name** value: *value*
attribute: **sequence_number** value: *value*
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_3D_Image

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: 3

attribute: **axis_order** value: FIRST_INDEX_FASTEST

attribute: **encoding_type** value: BINARY

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element

- End Array_3D_Movie

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- End Array_Element

- End Array_3D_Spectrum

- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: **BINARY**

attribute: **external_standard_id** value: **FITS, ISIS, ODL, VICAR**

attribute: **name** value: *value* ^{Optional}

attribute: **offset** value: *value*

- End Header

- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **CSV**

attribute: **field_delimiter** value: 0x09, 0x2C, 0x3B, 0x7C
attribute: **fields** value: *value*
attribute: **maximum_record_length** value: *value*
attribute: **offset** value: *value*
attribute: **record_delimiter** value: 0x0A, 0x0D, 0x0D_0x0A
attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.
role: Concrete

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: The Stream Delimited Grouped Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields.
role: Concrete

attribute: **repetitions** value: *value* Optional

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.
role: Concrete

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.

role: Concrete

attribute: **field_name** value: *value*

attribute: **field_number** value: *value* Optional

attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID

attribute: **field_format** value: *value* Optional

attribute: **minimum_scaled_value** value: *value* Optional

attribute: **maximum_scaled_value** value: *value* Optional

attribute: **field_min_logical** value: *value* Optional

attribute: **field_max_logical** value: *value* Optional

attribute: **field_scaling_factor** value: *value* Optional

attribute: **field_value_offset** value: *value* Optional

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m⁻²*sr⁻¹, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional

attribute: **field_description** value: *value* Optional

attribute: **field_bytes** value: *value*

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: Concrete

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* Optional

attribute: **maximum** value: *value* Optional

attribute: **md5_checksum** value: *value* Optional

attribute: **mean** value: **value** Optional
attribute: **median** value: **value** Optional
attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**
role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Stream_Delimited_Field**

- **End Stream_Delimited_Field_Sequence**

- **End Stream_Delimited_Grouped_Sequence**

- **End Stream_Delimited_Record**

- **End Stream_Delimited**

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- **End Stream_Text**

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional
 attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **description** value: **value** Optional
 attribute: **maximum** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **mean** value: **value** Optional
 attribute: **median** value: **value** Optional
 attribute: **minimum** value: **value** Optional
 attribute: **sample_bit_mask** value: **value** Optional
 attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
 attribute: **invalid_constant** value: **value** Optional
 attribute: **missing_constant** value: **value** Optional
 attribute: **not_applicable_constant** value: **value** Optional
 attribute: **saturated_constant** value: **value** Optional
 attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **BINARY**
 attribute: **fields** value: **value**
 attribute: **offset** value: **value**
 attribute: **record_bytes** value: **value**
 attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

attribute: **bit_mask** value: **value** ^{Optional}

attribute: **bits** value: **value**

attribute: **start_bit** value: **value**

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: **The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: *value* ^{Optional}

- End Table_Binary_Grouped_Field
- End Table_Binary_Field_Sequence
- End Table_Binary_Grouped_Sequence
- End Table_Record_Binary_Grouped
- End Table_Binary_Grouped

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**
role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: *value*
attribute: **offset** value: *value*
attribute: **record_bytes** value: *value*
attribute: **records** value: *value*

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**
role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: *value*
attribute: **field_number** value: *value* ^{Optional}
attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID
attribute: **field_location** value: *value*
attribute: **field_length** value: *value*
attribute: **field_format** value: *value* ^{Optional}
attribute: **minimum_scaled_value** value: *value* ^{Optional}
attribute: **maximum_scaled_value** value: *value* ^{Optional}
attribute: **field_min_logical** value: *value* ^{Optional}
attribute: **field_max_logical** value: *value* ^{Optional}
attribute: **field_scaling_factor** value: *value* ^{Optional}
attribute: **field_value_offset** value: *value* ^{Optional}
attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **field_description** value: *value* ^{Optional}

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: **value** Optional
attribute: **maximum** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **mean** value: **value** Optional
attribute: **median** value: **value** Optional
attribute: **minimum** value: **value** Optional
attribute: **sample_bit_mask** value: **value** Optional
attribute: **standard_deviation** value: **value** Optional

- End Object_Statistics

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional
attribute: **invalid_constant** value: **value** Optional
attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- End Special_Constants

- End Table_Character_Field

- End Table_Record_Character

- End Table_Character

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional
 attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID
 attribute: **field_location** value: **value**
 attribute: **field_length** value: **value**
 attribute: **field_format** value: **value** Optional
 attribute: **minimum_scaled_value** value: **value** Optional
 attribute: **maximum_scaled_value** value: **value** Optional
 attribute: **field_min_logical** value: **value** Optional
 attribute: **field_max_logical** value: **value** Optional
 attribute: **field_scaling_factor** value: **value** Optional
 attribute: **field_value_offset** value: **value** Optional
 attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr Optional
 attribute: **field_description** value: **value** Optional

- End Table_Character_Grouped_Field
- End Table_Character_Field_Sequence
- End Table_Character_Grouped_Sequence
- End Table_Record_Character_Grouped
- End Table_Character_Grouped
- End File_Area_Observational
- End Product_Table_Character

- **Product_Table_Character_Grouped**

description: The Product Table Character Grouped class defines a product consisting of at least one Character table with groups of repeating fields and other associated data objects and metadata.
 role: **Concrete**

- **Identification_Area_Product Occurs 1 Times**

description: The product identification area consists of attributes that identify and name a data product.
 role: **Concrete**
 attribute: **logical_identifier** value: **value**
 attribute: **version_id** value: **value**
 attribute: **product_class** value: **value**
 attribute: **title** value: **value**
 attribute: **alternate_title** value: **value** Optional
 attribute: **alternate_id** value: **value** Optional
 attribute: **last_modification_date_time** value: **value** Optional
 attribute: **product_subclass** value: **value** Optional

- **Subject_Area Occurs 1 Times**

description: The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.
 role: **Concrete**
 attribute: **target_name** value: **value** Optional
 attribute: **data_set_name** value: **value** Optional
 attribute: **instrument_name** value: **value** Optional
 attribute: **instrument_host_name** value: **value** Optional
 attribute: **full_name** value: **value** Optional
 attribute: **investigation_name** value: **value** Optional
 attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area_Product**

- **Cross_Reference_Area_Product Occurs 1 Times**

description: **The cross reference product area provides references to associated registered products.**

role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Observing_System - Occurs 1 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Product_Reference_Entry - Occurs 0 to * Times**

description: **The Product Reference Entry class provides a product specific reference and type**

information about the reference. The reference is to a product.

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **curated_by_node, has_association, has_browse, has_calibration, has_document, has_geometry, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_primary_collection, has_primary_product, has_publication, has_resource, has_spice, has_target, has_thumbnail**

- End Product_Reference_Entry
- End Cross_Reference_Area_Product

- **Observation_Area Occurs 1 Times**

description: **The observation area consists of attributes that provide information about the circumstances under which the data were collected.**

role: **Concrete**

- **Mission_Area - Occurs 0 to * Times**

description: **The mission area allow the insertion of mission specific metadata.**

role: **Concrete**

- End Mission_Area

- **Node_Area - Occurs 0 to * Times**

description: **The node area allow the insertion of node specific metadata.**

role: **Concrete**

- End Node_Area

attribute: **comment** value: **value** Optional

attribute: **start_date_time** value: **value**

attribute: **stop_date_time** value: **value**

attribute: **local_mean_solar_time** value: **value** Optional

attribute: **local_true_solar_time** value: **value** Optional

attribute: **mission_phase_name** value: **value** Optional

attribute: **orbit_number** value: **value** Optional

attribute: **planet_day_number** value: **value** Optional

attribute: **solar_longitude** value: **value** Optional

attribute: **spacecraft_clock_cnt_partition** value: **value** Optional

attribute: **spacecraft_clock_start_count** value: **value** Optional

attribute: **spacecraft_clock_stop_count** value: **value** Optional

- End Observation_Area

- **File_Area_Observational - Occurs 1 to * Times**

description: **The File Area Observational class describes, for an observational product, a file and one or more tagged_data_objects contained within the file.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File

- **Array_2D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Image class is an extension of array_base and defines a two dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Image_2D_Display - Occurs 0 to 1 Times**

description: **The Image_2D_Display class provides attributes to enable the display of a 2D image.**

role: **Concrete**

attribute: **first_line** value: *value*

attribute: **first_line_sample** value: *value*

attribute: **line_display_direction** value: **DOWN, LEFT, RIGHT, UP**

attribute: **sample_display_direction** value: **DOWN, LEFT, RIGHT, UP**

- **End Image_2D_Display**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **description** value: *value* ^{Optional}

attribute: **maximum** value: *value* ^{Optional}

attribute: **md5_checksum** value: *value* ^{Optional}

attribute: **mean** value: *value* ^{Optional}

attribute: **median** value: *value* ^{Optional}

attribute: **minimum** value: *value* ^{Optional}

attribute: **sample_bit_mask** value: *value* ^{Optional}

attribute: **standard_deviation** value: *value* ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: *value* ^{Optional}

attribute: **invalid_constant** value: *value* ^{Optional}

attribute: **missing_constant** value: *value* ^{Optional}

attribute: **not_applicable_constant** value: *value* ^{Optional}

attribute: **saturated_constant** value: *value* ^{Optional}

attribute: **unknown_constant** value: *value* ^{Optional}

- **End Special_Constants**

- **End Array_2D_Image**

- **Array_2D_Map - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Map class is an extension of array_base and defines a two dimensional map.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: *value*

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_2D_Map**

- **Array_2D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 2D Spectrum class is an extension of array_base and defines a two dimensional spectrum.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **axes** value: **2**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**
attribute: **encoding_type** value: **BINARY**
attribute: **offset** value: **value**

- **Array_Axis Occurs 2 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **value_offset** value: **value** ^{Optional}

attribute: **data_type** value: **IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte**

- **End Array_Element**

- **End Array_2D_Spectrum**

- **Array_3D_Image - Occurs 0 to * Times - Base_Class:Array_Base**

description: **The Array 3D Image class is an extension of array_base and defines a three dimensional image.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** ^{Optional}

attribute: **axes** value: **3**

attribute: **axis_order** value: **FIRST_INDEX_FASTEST**

attribute: **encoding_type** value: **BINARY**

attribute: **offset** value: **value**

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: **value**

attribute: **name** value: **value**

attribute: **sequence_number** value: **value**

attribute: **unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

- **End Array_Axis**

- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: **value** ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Image

- **Array_3D_Movie - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Movie class is an extension of array_base and defines a movie as a set of two dimensional images in a time series.

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: 3
attribute: **axis_order** value: FIRST_INDEX_FASTEST
attribute: **encoding_type** value: BINARY
attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: The Array Axis class is used as a component of the array class and defines an axis of the array.

role: **Concrete**

attribute: **elements** value: *value*
attribute: **name** value: *value*
attribute: **sequence_number** value: *value*
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis

- **Array_Element Occurs 1 Times**

description: The Array Element class is used as a component of the array class and defines an element of the array.

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}
attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}
attribute: **value_offset** value: *value* ^{Optional}
attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Movie

- **Array_3D_Spectrum - Occurs 0 to * Times - Base_Class:Array_Base**

description: The Array 3D Spectrum class is an extension of array_base and defines a three dimensional spectrum.

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **comment** value: *value* ^{Optional}
attribute: **axes** value: 3
attribute: **axis_order** value: FIRST_INDEX_FASTEST
attribute: **encoding_type** value: BINARY
attribute: **offset** value: *value*

- **Array_Axis Occurs 3 Times**

description: **The Array Axis class is used as a component of the array class and defines an axis of the array.**

role: **Concrete**

attribute: **elements** value: *value*

attribute: **name** value: *value*

attribute: **sequence_number** value: *value*

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

- End Array_Axis
- **Array_Element Occurs 1 Times**

description: **The Array Element class is used as a component of the array class and defines an element of the array.**

role: **Concrete**

attribute: **scaling_factor** value: *value* ^{Optional}

attribute: **unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **value_offset** value: *value* ^{Optional}

attribute: **data_type** value: IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte

- End Array_Element
- End Array_3D_Spectrum
- **Header - Occurs 0 to * Times**

description: **The Header class describes a data object header.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **description** value: *value* ^{Optional}

attribute: **bytes** value: *value*

attribute: **encoding_type** value: BINARY

attribute: **external_standard_id** value: FITS, ISIS, ODL, VICAR

attribute: **name** value: *value* ^{Optional}

attribute: **offset** value: *value*

- End Header
- **Stream_Delimited - Occurs 0 to * Times**

description: **The Stream Delimited class defines a simple spreadsheet.**

role: **Concrete**

attribute: **local_identifier** value: *value*

attribute: **comment** value: *value* ^{Optional}

attribute: **encoding_type** value: CHARACTER

attribute: **external_standard_id** value: CSV

attribute: **field_delimiter** value: 0x09, 0x2C, 0x3B, 0x7C

attribute: **fields** value: *value*

attribute: **maximum_record_length** value: *value*

attribute: **offset** value: *value*

attribute: **record_delimiter** value: 0x0A, 0x0D, 0x0D_0x0A

attribute: **records** value: *value*

- **Stream_Delimited_Record - Occurs 1 to * Times**

description: **The Stream Delimited Record class is a component of the stream delimited (spreadsheet) class and defines a record of the spreadsheet.**

role: **Concrete**

- **Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**

description: **The Stream Delimited Grouped Sequence class is a component of the**

grouped stream delimited (spreadsheet) class. It defines a set of fields.

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Stream_Delimited_Field_Sequence - Occurs 1 to * Times**

description: The Stream Delimited Field Sequence class is a component of the grouped stream delimited (spreadsheet) class. It defines a set of fields or a nested set of fields.

role: **Concrete**

- **Stream_Delimited_Field - Occurs 0 to * Times**

description: The Stream Delimited Field class is a component of the stream delimited (spreadsheet) record class and defines a field of the record.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

attribute: **field_bytes** value: **value**

- **Object_Statistics - Occurs 0 to 1 Times**

description: The Object Statistics class provides a set of values that provide metrics about the object.

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

attribute: **maximum** value: **value** ^{Optional}

attribute: **md5_checksum** value: **value** ^{Optional}

attribute: **mean** value: **value** ^{Optional}

attribute: **median** value: **value** ^{Optional}

attribute: **minimum** value: **value** ^{Optional}

attribute: **sample_bit_mask** value: **value** ^{Optional}

attribute: **standard_deviation** value: **value** ^{Optional}

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: The Special Constants class provides a set of values used to indicate special cases that occur in the data.

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}

attribute: **invalid_constant** value: **value** ^{Optional}

attribute: **missing_constant** value: **value** Optional
attribute: **not_applicable_constant** value: **value** Optional
attribute: **saturated_constant** value: **value** Optional
attribute: **unknown_constant** value: **value** Optional

- End Special_Constants
- End Stream_Delimited_Field
- End Stream_Delimited_Field_Sequence
- End Stream_Delimited_Grouped_Sequence
- End Stream_Delimited_Record
- End Stream_Delimited

- **Stream_Text - Occurs 0 to * Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **CHARACTER**
attribute: **external_standard_id** value: **value**
attribute: **offset** value: **value**

- End Stream_Text

- **Table_Binary - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary class is an extension of table base and defines a simple binary table.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Binary Occurs 1 Times**

description: **The Table Record Binary class is a component of the table class and defines a record of the table. This extension defines a binary record.**

role: **Concrete**

- **Table_Binary_Field - Occurs 1 to * Times**

description: **The Table Binary Field class is a component of the table record class and defines a field of the record. This extension defines a binary field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** Optional
attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** Optional
attribute: **minimum_scaled_value** value: **value** Optional
attribute: **maximum_scaled_value** value: **value** Optional
attribute: **field_min_logical** value: **value** Optional
attribute: **field_max_logical** value: **value** Optional
attribute: **field_scaling_factor** value: **value** Optional
attribute: **field_value_offset** value: **value** Optional
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional
attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** Optional

attribute: **invalid_constant** value: **value** Optional

attribute: **missing_constant** value: **value** Optional

attribute: **not_applicable_constant** value: **value** Optional

attribute: **saturated_constant** value: **value** Optional

attribute: **unknown_constant** value: **value** Optional

- **End Special_Constants**

- **End Table_Binary_Field**

- **End Table_Record_Binary**

- **End Table_Binary**

- **Table_Binary_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Binary Grouped class is an extension of table base and defines a simple binary table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **BINARY**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Binary_Grouped Occurs 1 Times**

description: **The Table Record Binary Grouped class is a component of the table class and defines a record of the table. This extension defines a binary record with grouped fields.**

role: **Concrete**

- **Table_Binary_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Binary Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** Optional

- **Table_Binary_Field_Sequence - Occurs 1 to * Times**

description: **The Table Binary Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Binary_Grouped_Bit_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Bit Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped bit field.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

attribute: **bit_mask** value: **value** ^{Optional}

attribute: **bits** value: **value**

attribute: **start_bit** value: **value**

- **End Table_Binary_Grouped_Bit_Field**

- **Table_Binary_Grouped_Field - Occurs 0 to * Times**

description: The Table Binary Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a binary grouped field.

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** ^{Optional}

attribute: **field_data_type** value: **Bit, ComplexB16, ComplexB8, IEEE754Double, IEEE754Single, SignedLSB2, SignedLSB4, SignedLSB8, SignedMSB2, SignedMSB4, SignedMSB8, UnsignedByte, UnsignedLSB2, UnsignedLSB4, UnsignedMSB2, UnsignedMSB4**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** ^{Optional}

attribute: **minimum_scaled_value** value: **value** ^{Optional}

attribute: **maximum_scaled_value** value: **value** ^{Optional}

attribute: **field_min_logical** value: **value** ^{Optional}

attribute: **field_max_logical** value: **value** ^{Optional}

attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}

attribute: **field_description** value: **value** ^{Optional}

- **End Table_Binary_Grouped_Field**

- **End Table_Binary_Field_Sequence**

- **End Table_Binary_Grouped_Sequence**

- **End Table_Record_Binary_Grouped**

- **End Table_Binary_Grouped**

- **Table_Character - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character class is an extension of table base and defines a simple character table.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **fields** value: **value**

attribute: **offset** value: **value**

attribute: **record_bytes** value: **value**

attribute: **records** value: **value**

- **Table_Record_Character Occurs 1 Times**

description: **The Table Record Character class is a component of the table class and defines a record of the table. This extension defines a character record.**

role: **Concrete**

- **Table_Character_Field - Occurs 1 to * Times**

description: **The Table Character Field class is a component of the table record class and defines a field of the record. This extension defines a character field.**

role: **Concrete**

attribute: **field_name** value: **value**

attribute: **field_number** value: **value** Optional

attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**

attribute: **field_location** value: **value**

attribute: **field_length** value: **value**

attribute: **field_format** value: **value** Optional

attribute: **minimum_scaled_value** value: **value** Optional

attribute: **maximum_scaled_value** value: **value** Optional

attribute: **field_min_logical** value: **value** Optional

attribute: **field_max_logical** value: **value** Optional

attribute: **field_scaling_factor** value: **value** Optional

attribute: **field_value_offset** value: **value** Optional

attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** Optional

attribute: **field_description** value: **value** Optional

- **Object_Statistics - Occurs 0 to 1 Times**

description: **The Object Statistics class provides a set of values that provide metrics about the object.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **maximum** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **mean** value: **value** Optional

attribute: **median** value: **value** Optional

attribute: **minimum** value: **value** Optional

attribute: **sample_bit_mask** value: **value** Optional

attribute: **standard_deviation** value: **value** Optional

- **End Object_Statistics**

- **Special_Constants - Occurs 0 to 1 Times**

description: **The Special Constants class provides a set of values used to indicate special cases that occur in the data.**

role: **Concrete**

attribute: **error_constant** value: **value** ^{Optional}
attribute: **invalid_constant** value: **value** ^{Optional}
attribute: **missing_constant** value: **value** ^{Optional}
attribute: **not_applicable_constant** value: **value** ^{Optional}
attribute: **saturated_constant** value: **value** ^{Optional}
attribute: **unknown_constant** value: **value** ^{Optional}

- End Special_Constants
- End Table_Character_Field
- End Table_Record_Character
- End Table_Character

- **Table_Character_Grouped - Occurs 0 to * Times - Base_Class:Table_Base**

description: **The Table Character Grouped class is an extension of table base and defines a simple character table that allows repeating groups of fields.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **encoding_type** value: **CHARACTER**
attribute: **fields** value: **value**
attribute: **offset** value: **value**
attribute: **record_bytes** value: **value**
attribute: **records** value: **value**

- **Table_Record_Character_Grouped Occurs 1 Times**

description: **The Table Record Character Grouped class is a component of the table class and defines a record of the table. This extension defines a character record with grouped fields.**

role: **Concrete**

- **Table_Character_Grouped_Sequence - Occurs 1 to * Times**

description: **The Table Character Grouped Sequence class is a component of the grouped table class. It defines a set of fields.**

role: **Concrete**

attribute: **repetitions** value: **value** ^{Optional}

- **Table_Character_Field_Sequence - Occurs 1 to * Times**

description: **The Table Character Field Sequence class is a component of the grouped table class. It defines a set of fields or a nested set of fields.**

role: **Concrete**

- **Table_Character_Grouped_Field - Occurs 0 to * Times**

description: **The Table Character Grouped Field class is a component of the table record class and defines a field of the record. This extension defines a character grouped field.**

role: **Concrete**

attribute: **field_name** value: **value**
attribute: **field_number** value: **value** ^{Optional}
attribute: **field_data_type** value: **ASCII_AnyURI, ASCII_Boolean_TF, ASCII_DOI, ASCII_Date_DOY, ASCII_Date_Time_DOY, ASCII_Date_Time_UTC, ASCII_Date_Time_YMD, ASCII_Date_YMD, ASCII_File_Specification_Name, ASCII_Integer, ASCII_LID, ASCII_LIDVID, ASCII_MD5_Checksum, ASCII_NonNegative_Integer, ASCII_Numeric_Base16, ASCII_Numeric_Base2, ASCII_Real, ASCII_Short_String_Collapsed, ASCII_Short_String_Preserved, ASCII_Text_Preserved, ASCII_Time, ASCII_VID**
attribute: **field_location** value: **value**
attribute: **field_length** value: **value**
attribute: **field_format** value: **value** ^{Optional}
attribute: **minimum_scaled_value** value: **value** ^{Optional}
attribute: **maximum_scaled_value** value: **value** ^{Optional}
attribute: **field_min_logical** value: **value** ^{Optional}
attribute: **field_max_logical** value: **value** ^{Optional}
attribute: **field_scaling_factor** value: **value** ^{Optional}

attribute: **field_value_offset** value: **value** ^{Optional}
attribute: **field_unit** value: **AU, Angstrom, DN, K, L, Pa, V, W*m-2*sr-1, airmass, arcmin, arcsec, bar, byte, cm, cm/s, counts/bin, day, deg, deg/day, deg/s, degC, electron/DN, g, hPa, hr, hr, hz, kg, kilobits/s, km, km/pixel, km/s, m, m2, m3, m/pixel, m/s, mV, mbar, micrometer, microseconds, min, mm, mm/pixel, mol, mrad, ms, nm, none, pixel, pixel/deg, rad, rad/s, s, sr, yr** ^{Optional}
attribute: **field_description** value: **value** ^{Optional}

- End Table_Character_Grouped_Field
 - End Table_Character_Field_Sequence
 - End Table_Character_Grouped_Sequence
 - End Table_Record_Character_Grouped
 - End Table_Character_Grouped
 - End File_Area_Observational
 - End Product_Table_Character_Grouped
-

• Product_Target

description: **A target product describes a target.**
role: **Concrete**

• Identification_Area_Product Occurs 1 Times

description: **The product identification area consists of attributes that identify and name a data product.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** ^{Optional}

attribute: **alternate_id** value: **value** ^{Optional}

attribute: **last_modification_date_time** value: **value** ^{Optional}

attribute: **product_subclass** value: **value** ^{Optional}

• Subject_Area Occurs 1 Times

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** ^{Optional}

attribute: **data_set_name** value: **value** ^{Optional}

attribute: **instrument_name** value: **value** ^{Optional}

attribute: **instrument_host_name** value: **value** ^{Optional}

attribute: **full_name** value: **value** ^{Optional}

attribute: **investigation_name** value: **value** ^{Optional}

attribute: **observing_system_name** value: **value** ^{Optional}

• Name_Resolution - Occurs 0 to * Times

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

• End Name_Resolution

• End Subject_Area

• End Identification_Area_Product

• Cross_Reference_Area_Context Occurs 1 Times

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Target Occurs 1 Times**

description: **The Target class provides a description of a physical object that is the object of data collection.**

role: **Concrete**

attribute: **description** value: **value** Optional

- **End Target**

- **End Product_Target**

- **Product_Text_File**

description: **The Product Text File consists of a single text file with ASCII character encoding.**

role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: *value* Optional
attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*

attribute: **lidvid_reference** value: *value* Optional

attribute: **name** value: *value*

attribute: **primary_name** value: *value*

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Cross_Reference_Area - Occurs 0 to 1 Times**

description: **The cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: *value* Optional

attribute: **title** value: *value*

attribute: **description** value: *value* Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: *value* Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional

attribute: **lidvid_reference** value: *value* Optional

attribute: **reference_association_type** value: **has_association**

- **End Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** Optional

attribute: **doi** value: **value** Optional

attribute: **reference_text** value: **value**

attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- End Cross_Reference_Area
- **File_Area_Text Occurs 1 Times**

description: **The File Area Text class describes a file that contains a text stream object.**

role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **comment** value: **value** Optional

attribute: **creation_date_time** value: **value** Optional

attribute: **file_name** value: **value**

attribute: **file_size** value: **value** Optional

attribute: **max_record_bytes** value: **value** Optional

attribute: **md5_checksum** value: **value** Optional

attribute: **records** value: **value** Optional

- End File
- **Stream_Text Occurs 1 Times**

description: **The Stream text class defines a text file.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **comment** value: **value** Optional

attribute: **encoding_type** value: **CHARACTER**

attribute: **external_standard_id** value: **value**

attribute: **offset** value: **value**

- End Stream_Text
 - End File_Area_Text
 - End Product_Text_File
-

• **Product_Thumbnail**

description: **The Product Thumbnail class defines a product consisting of one encoded byte stream digital object.**

role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** Optional

attribute: **alternate_id** value: **value** Optional

attribute: **last_modification_date_time** value: **value** Optional

attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** Optional

attribute: **data_set_name** value: **value** Optional

attribute: **instrument_name** value: **value** Optional

attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional

attribute: **investigation_name** value: **value** Optional

attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional

attribute: **name** value: **value**

attribute: **primary_name** value: **value**

attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Cross_Reference_Area - Occurs 0 to 1 Times**

description: **The cross reference area provides references to associated registered products.**

role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional

attribute: **title** value: **value**

attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**

attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional

attribute: **lidvid_reference** value: **value** Optional

attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- **End Observing_System_Reference_Entry**

- **End Observing_System_Component**

- **End Observing_System**

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association**

- End Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- End Cross_Reference_Area

- **File_Area_Encoded_Image Occurs 1 Times**

description: **The File Area Encoded Image class describes a file that contains an Encoded Image object.**
role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**

role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- End File

- **Encoded_Image Occurs 1 Times**

description: **The Encoded Image class, a subclass of Encoded Byte stream is used for ancillary images in standard formats, such as JPEG.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** Optional
attribute: **encoding_type** value: **BINARY**
attribute: **external_standard_id** value: **GIF, JPEG, PDF, TIFF**
attribute: **offset** value: **value**

- End Encoded_Image
 - End File_Area_Encoded_Image
 - End Product_Thumbnail
-

- **Product_Update**

description: **The Product Update class defines a product consisting of update information and optional references to other products.**

role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: *value*
attribute: **product_class** value: *value*
attribute: **title** value: *value*
attribute: **alternate_title** value: *value* Optional
attribute: **alternate_id** value: *value* Optional
attribute: **last_modification_date_time** value: *value* Optional
attribute: **product_subclass** value: *value* Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: *value* Optional
attribute: **data_set_name** value: *value* Optional
attribute: **instrument_name** value: *value* Optional
attribute: **instrument_host_name** value: *value* Optional
attribute: **full_name** value: *value* Optional
attribute: **investigation_name** value: *value* Optional
attribute: **observing_system_name** value: *value* Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: *value*
attribute: **lidvid_reference** value: *value* Optional
attribute: **name** value: *value*
attribute: **primary_name** value: *value*
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **Cross_Reference_Area_Context Occurs 1 Times**

description: **The context cross reference area provides references to associated registered products.**
role: **Concrete**

- **Context_Reference_Entry - Occurs 0 to * Times**

description: **The Context Reference Entry class implements associations between context products. For example, an instrument is associated with an instrument_host which in turn is associated with an investigation.**

role: **Concrete**

attribute: **lid_reference** value: *value* Optional
attribute: **lidvid_reference** value: *value* Optional
attribute: **reference_association_type** value: **has_association, has_data_producer, has_instrument, has_instrument_host, has_investigation, has_node, has_personnel, has_publication, has_resource, has_target**

- **End Context_Reference_Entry**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: *value*
attribute: **description** value: *value* Optional
attribute: **doi** value: *value* Optional
attribute: **reference_text** value: *value*
attribute: **url** value: *value* Optional

- **End Bibliographic_Reference**

- **End Cross_Reference_Area_Context**

- **Update Occurs 1 Times**

description: **The Update class consists of update information.**

role: **Concrete**

attribute: **local_identifier** value: **value**

attribute: **description** value: **value** ^{Optional}

- **Update_Entry - Occurs 0 to * Times**

description: **The Update Entry class provides the date and description of an update.**

role: **Concrete**

attribute: **description** value: **value**

attribute: **actor_name** value: **value**

attribute: **date_time** value: **value**

- **Reference_Entry_Generic - Occurs 0 to 1 Times**

description: **The Reference Entry Generic class provides a reference and type information about the reference. The reference is to a product.**

role: **Abstract**

attribute: **lid_reference** value: **value** ^{Optional}

attribute: **lidvid_reference** value: **value** ^{Optional}

attribute: **reference_association_type** value: **value**

- **End Reference_Entry_Generic**

- **End Update_Entry**

- **End Update**

- **End Product_Update**

- **Product_XML_Schema**

description: **The Product XML Schema consists of a single text file in XML Schema encoding.**

role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**

role: **Concrete**

attribute: **logical_identifier** value: **value**

attribute: **version_id** value: **value**

attribute: **product_class** value: **value**

attribute: **title** value: **value**

attribute: **alternate_title** value: **value** ^{Optional}

attribute: **alternate_id** value: **value** ^{Optional}

attribute: **last_modification_date_time** value: **value** ^{Optional}

attribute: **product_subclass** value: **value** ^{Optional}

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**

role: **Concrete**

attribute: **target_name** value: **value** ^{Optional}

attribute: **data_set_name** value: **value** ^{Optional}

attribute: **instrument_name** value: **value** ^{Optional}

attribute: **instrument_host_name** value: **value** ^{Optional}

attribute: **full_name** value: **value** ^{Optional}

attribute: **investigation_name** value: **value** ^{Optional}

attribute: **observing_system_name** value: **value** ^{Optional}

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**

role: **Concrete**

attribute: **class_name** value: **value**

attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- End Name_Resolution
- End Subject_Area
- End Identification_Area
- **Cross_Reference_Area - Occurs 0 to 1 Times**

description: **The cross reference area provides references to associated registered products.**
role: **Concrete**

- **Observing_System - Occurs 0 to * Times**

description: **The Observing_System class references one or more subsystems used to collect data. A subsystem can be an instrument_host, instrument, or any other similar product. The subsystems are grouped into components, for example a sensor or a source.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **title** value: **value**
attribute: **description** value: **value** Optional

- **Observing_System_Component - Occurs 1 to 2 Times**

description: **The Observing System Component class references one or more subsystems that function as a sensor. A subsystem can be an instrument_host, instrument, or any other similar product.**

role: **Concrete**
attribute: **observing_system_component_type** value: **SENSOR, SOURCE**

- **Observing_System_Reference_Entry - Occurs 1 to * Times**

description: **The Observing System Reference Entry class provides a product specific reference and type information about the reference. The references are to components of the observing system.**

role: **Concrete**
attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association, has_instrument, has_instrument_host**

- End Observing_System_Reference_Entry
- End Observing_System_Component
- End Observing_System

- **Reference_Entry - Occurs 0 to * Times**

description: **The Reference Entry class provides a reference and type information about the reference. The reference is to a product.**

role: **Concrete**
attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **has_association**

- End Reference_Entry

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- End Bibliographic_Reference
- End Cross_Reference_Area

- **File_Area_XML_Schema Occurs 1 Times**

description: **The File Area XML Schema class describes a file that contains an XML Schema object.**
 role: **Concrete**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
 role: **Concrete**

attribute: **local_identifier** value: **value** Optional
 attribute: **comment** value: **value** Optional
 attribute: **creation_date_time** value: **value** Optional
 attribute: **file_name** value: **value**
 attribute: **file_size** value: **value** Optional
 attribute: **max_record_bytes** value: **value** Optional
 attribute: **md5_checksum** value: **value** Optional
 attribute: **records** value: **value** Optional

- End File

- **XML_Schema Occurs 1 Times**

description: **The XML Schema class defines a text stream file containing XML Schema.**
 role: **Concrete**

attribute: **local_identifier** value: **value**
 attribute: **comment** value: **value** Optional
 attribute: **encoding_type** value: **CHARACTER**
 attribute: **external_standard_id** value: **XML_Schema**
 attribute: **offset** value: **value**

- End XML_Schema

- End File_Area_XML_Schema

- End Product_XML_Schema

- **Product_Zipped**

description: **The Product_Zipped is a product with references to other products. The referenced products and all associated products and files are packaged into a single ZIP file.**
 role: **Concrete**

- **Identification_Area Occurs 1 Times**

description: **The identification area consists of attributes that identify and name an object.**
 role: **Concrete**

attribute: **logical_identifier** value: **value**
 attribute: **version_id** value: **value**
 attribute: **product_class** value: **value**
 attribute: **title** value: **value**
 attribute: **alternate_title** value: **value** Optional
 attribute: **alternate_id** value: **value** Optional
 attribute: **last_modification_date_time** value: **value** Optional
 attribute: **product_subclass** value: **value** Optional

- **Subject_Area - Occurs 0 to 1 Times**

description: **The Subject Area provides one or more topics associated with the identifiable using keywords, key phrases, or classification codes.**
 role: **Concrete**

attribute: **target_name** value: **value** Optional
 attribute: **data_set_name** value: **value** Optional
 attribute: **instrument_name** value: **value** Optional
 attribute: **instrument_host_name** value: **value** Optional

attribute: **full_name** value: **value** Optional
attribute: **investigation_name** value: **value** Optional
attribute: **observing_system_name** value: **value** Optional

- **Name_Resolution - Occurs 0 to * Times**

description: **The Name_Resolution class provides both primary and alternate names of an object.**
role: **Concrete**

attribute: **class_name** value: **value**
attribute: **lidvid_reference** value: **value** Optional
attribute: **name** value: **value**
attribute: **primary_name** value: **value**
attribute: **role** value: **ALTERNATE, PRIMARY**

- **End Name_Resolution**

- **End Subject_Area**

- **End Identification_Area**

- **File Occurs 1 Times**

description: **The File class consists of attributes that describe a file in a data store.**
role: **Concrete**

attribute: **local_identifier** value: **value** Optional
attribute: **comment** value: **value** Optional
attribute: **creation_date_time** value: **value** Optional
attribute: **file_name** value: **value**
attribute: **file_size** value: **value** Optional
attribute: **max_record_bytes** value: **value** Optional
attribute: **md5_checksum** value: **value** Optional
attribute: **records** value: **value** Optional

- **End File**

attribute: **container_type** value: **GZIP, LZIP, TAR, ZIP**

- **Cross_Reference_Area_Generic - Occurs 0 to 1 Times**

description: **The cross reference area generic provides references for associated products.**
role: **Concrete**

- **Bibliographic_Reference - Occurs 0 to * Times**

description: **The Bibliographic Reference class provides references to documents that are not registered with the PDS.**

role: **Concrete**

attribute: **local_identifier** value: **value**
attribute: **description** value: **value** Optional
attribute: **doi** value: **value** Optional
attribute: **reference_text** value: **value**
attribute: **url** value: **value** Optional

- **End Bibliographic_Reference**

- **Reference_Entry_Generic - Occurs 0 to * Times**

description: **The Reference Entry Generic class provides a reference and type information about the reference. The reference is to a product.**

role: **Abstract**

attribute: **lid_reference** value: **value** Optional
attribute: **lidvid_reference** value: **value** Optional
attribute: **reference_association_type** value: **value**

- **End Reference_Entry_Generic**

- **End Cross_Reference_Area_Generic**

- **Zipped_Member_Entry - Occurs 0 to * Times**

description: **The Zipped Member Entry class provides a member reference to a product.**

role: **Concrete**
attribute: **file_specification_name** value: **value**
attribute: **lidvid_reference** value: **value**
attribute: **md5_checksum** value: **value**
attribute: **reference_association_type** value: **contained_product, manifest_product**

- End Zipped_Member_Entry
 - End Product_Zipped
-

• Rings_Prod_Info

description: **This class identifies the set of elements pertinent to Rings products.**

role: **Concrete**
attribute: **node_name** value: **Planetary_Rings**
attribute: **incidence_angle** value: **value**
attribute: **maximum_ring_radius** value: **value**
attribute: **minimum_ring_radius** value: **value**
attribute: **node_id** value: **RINGS**
attribute: **occultation_type** value: **STELLAR**
attribute: **planetary_occultation_flag** value: **n, y**
attribute: **radial_resolution** value: **value**
attribute: **ring_event_start_time** value: **value**
attribute: **ring_event_stop_time** value: **value**
attribute: **ring_occultation_direction** value: **both, egress, ingress, multiple**
attribute: **star_name** value: **value**

- End Rings_Prod_Info
-

• Telemetry_Parameters

description: **Descriptive elements related to the flow of data from a spacecraft to the ground for reconstruction into a data product.**

role: **Concrete**
attribute: **local_identifier** value: **value**
attribute: **comment** value: **value** ^{Optional}
attribute: **application_process_id** value: **value** ^{Optional}
attribute: **application_process_name** value: **APXS, DESCENT IMAGER, HAZCAM LEFT FRONT, HAZCAM LEFT REAR, HAZCAM RIGHT FRONT, HAZCAM RIGHT REAR, MB, MI, MINITES, NAVCAM LEFT, NAVCAM RIGHT, PANCAM LEFT, PANCAM RIGHT, RAT** ^{Optional}
attribute: **application_process_subtype_id** value: **value** ^{Optional}
attribute: **earth_received_start_time** value: **value** ^{Optional}
attribute: **earth_received_stop_time** value: **value** ^{Optional}
attribute: **expected_packets** value: **value** ^{Optional}
attribute: **packet_map_mask** value: **value** ^{Optional}
attribute: **received_packets** value: **value** ^{Optional}
attribute: **spice_file_name** value: **value** ^{Optional}
attribute: **telemetry_provider_id** value: **ssw_mer_dp, ttacs** ^{Optional}
attribute: **telemetry_source_name** value: **value** ^{Optional}
attribute: **telemetry_source_type** value: **data_product, sfdu** ^{Optional}

- End Telemetry_Parameters
-

9. PDS4 Data Type Definitions Mon Apr 04 17:36:21 PDT 2011

Generated from the PDS4 Information Model Version 0.3.0.0.e

• Data Type:ASCII_AnyURI

description: **The ASCII AnyURI class indicates a URI or its subclasses URN and URL.**
character_constraint: **ASCII**
enumerated_flag: **F**
maximum_characters: **255**
minimum_characters: **1**

xml_schema_base_type: **xsd:anyURI**
character_encoding: **UTF-8**

- **Data Type:ASCII_Boolean_TF**

description: **The ASCII_Boolean_TF class indicates a boolean with a permissible value of either T or F.**
character_constraint: **ASCII**
enumerated_flag: **T**
maximum_characters: **1**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_DOI**

description: **The ASCII DOI class indicates a digital object identifier (DOI).**
character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **nn.nnnn/nnn**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Date_DOY**

description: **The ASCII_Date_DOY class indicates a date in DOY format constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **yyyy-doy**
maximum_characters: **8**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Date_Time**

description: **The ASCII_Date_Time class indicates a date in either YMD or DOY format and time constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **yyyy-mm-ddThh:mm:ss.sss/yyyy-doyThh:mm:ss.sss**
maximum_characters: **30**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Date_Time_DOY**

description: **The ASCII_Date_Time_DOY class indicates a date in DOY format and time constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **yyyy-doyThh:mm:ss.sss**
maximum_characters: **30**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Date_Time_UTC**

description: **The ASCII_Date_Time_UTC class indicates a date and time in UTC format constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **yyyy-mm-ddThh:mm:ss.sssZ**
maximum_characters: **30**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Date_Time_YMD**

description: **The ASCII_Date_Time_YMD class indicates a date in YMD format and time constrained to the ASCII encoding.**

character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **yyyy-mm-ddThh:mm:ss.sss**
maximum_characters: **30**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Date_YMD**

description: **The ASCII_Date_YMD class indicates a date in YMD format constrained to the ASCII encoding.**

character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **yyyy-mm-dd**
maximum_characters: **10**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Directory_Path_Name**

description: **The ASCII Directory Path Name class indicates a system directory path constrained to the ASCII encoding.**

character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **dir1/dir2/**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:token**
character_encoding: **UTF-8**

- **Data Type:ASCII_File_Name**

description: **The ASCII File Name class indicates a system file name constrained to the ASCII encoding.**

character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **file_name.file_extension**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:token**
character_encoding: **UTF-8**

- **Data Type:ASCII_File_Specification_Name**

description: **The ASCII File Specification Name class indicates a system file including directory path, file name, and file extension constrained to the ASCII encoding.**

character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: **dir1/dir2/file_name.file_extension**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:token**
character_encoding: **UTF-8**

- **Data Type:ASCII_Identifier**

description: **The ASCII_Identifier class indicates a identifier constrained to the ASCII encoding.**

character_constraint: **ASCII**
enumerated_flag: **F**
maximum_characters: **100**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Integer**

description: **The ASCII_Integer class indicates an integer constrained to the ASCII encoding.**
enumerated_flag: F
maximum_value: **2147483647**
minimum_value: **-2147483648**
xml_schema_base_type: **xsd:integer**
character_encoding: **UTF-8**

- **Data Type:ASCII_LID**

description: **The ASCII_LID class indicates a logical identifier constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: F
formation_rule: * URN:NASA:PDS:xxxx *
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_LIDVID**

description: **The ASCII_LIDVID class indicates a logical identifier and version identifier constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: F
formation_rule: * URN:NASA:PDS:xxxx::M.n*
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_MD5_Checksum**

description: **The ASCII MD5 Checksum class indicates a checksum computed by the Message-Digest algorithm 5 (MD5).**
character_constraint: **ASCII**
enumerated_flag: F
formation_rule: **0123456789abcdef**
maximum_characters: **32**
minimum_characters: **32**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Mask**

description: **The ASCII_Mask class indicates a binary mask using either binary, octal, or hexadecimal notation.**
character_constraint: **ASCII**
enumerated_flag: F
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_NonNegative_Integer**

description: **The ASCII_NonNegative_Integer class indicates a non-negative integer constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: F
maximum_value: **2147483647**
minimum_value: **0**
xml_schema_base_type: **xsd:integer**
character_encoding: **UTF-8**

- **Data Type:ASCII_Numeric_Base16**

description: **The ASCII Numeric Base16 class indicates a ASCII encoded string constrained to hexadecimal digits.**
character_constraint: **ASCII**
enumerated_flag: F
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Numeric_Base2**

description: **The ASCII Numeric Base2 class indicates a ASCII encoded string constrained to binary digits.**
character_constraint: **ASCII**
enumerated_flag: **F**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Real**

description: **The ASCII Real class indicates a real constrained to the ASCII encoding.**
enumerated_flag: **F**
maximum_value: **INF**
minimum_value: **-INF**
xml_schema_base_type: **xsd:float**
character_encoding: **UTF-8**

- **Data Type:ASCII_Short_String_Collapsed**

description: **The ASCII_Short_String_Collapsed class indicates a limited length, whitespace-collapsed string constrained to the ASCII character encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:token**
character_encoding: **UTF-8**

- **Data Type:ASCII_Short_String_Preserved**

description: **The ASCII_Short_String_Preserved class indicates a limited length, whitespace-preserved string constrained to the ASCII character encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
maximum_characters: **255**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Text_Preserved**

description: **The ASCII_Text_Preserved class indicates an unlimited length, whitespace-preserved text string constrained to the ASCII character encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
maximum_characters: **2147483647**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_Time**

description: **The ASCII_Time class indicates a time value constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**
formation_rule: ***hh:mm:ss.sss ***
maximum_characters: **20**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:ASCII_VID**

description: **The ASCII_VID class indicates a version identifier constrained to the ASCII encoding.**
character_constraint: **ASCII**
enumerated_flag: **F**

formation_rule: **M.m**
maximum_characters: **100**
minimum_characters: **1**
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:Bit**

description: **A single binary digit.**
enumerated_flag: **TRUE**

- **Data Type:ComplexB16**

description: **Complex number consisting of two 8 byte decimal reals.**
enumerated_flag: **FALSE**

- **Data Type:ComplexB8**

description: **Complex number consisting of two 4 byte decimal reals.**
enumerated_flag: **FALSE**

- **Data Type:IEEE754Double**

description: **IEEE 754 double precision floating point**
enumerated_flag: **FALSE**

- **Data Type:IEEE754Single**

description: **IEEE 754 single precision floating point**
enumerated_flag: **FALSE**

- **Data Type:SignedLSB2**

description: **Signed 2's-complement LSB 2-byte integers**
enumerated_flag: **FALSE**

- **Data Type:SignedLSB4**

description: **Signed 2's-complement LSB 4-byte integers**
enumerated_flag: **FALSE**

- **Data Type:SignedLSB8**

description: **Signed 2's-complement LSB 8-byte integers**
enumerated_flag: **FALSE**

- **Data Type:SignedMSB2**

description: **Signed 2's-complement MSB 2-byte integers**
enumerated_flag: **FALSE**

- **Data Type:SignedMSB4**

description: **Signed 2's-complement MSB 4-byte integers**
enumerated_flag: **FALSE**

- **Data Type:SignedMSB8**

description: **Signed 2's-complement MSB 8-byte integers**
enumerated_flag: **FALSE**

- **Data Type:UTF8_Short_String_Collapsed**

description: **The UTF8_Short_String_Collapsed class indicates a limited length, whitespace-collapsed string constrained to the UTF-8 character encoding.**
enumerated_flag: **F**
maximum_characters: **255**

minimum_characters: 1
xml_schema_base_type: **xsd:token**
character_encoding: **UTF-8**

- **Data Type:UTF8_Short_String_Preserved**

description: **The UTF8_Short_String_Preserved class indicates a limited length, whitespace-preserved string constrained to the UTF-8 character encoding.**

enumerated_flag: F
maximum_characters: **255**
minimum_characters: 1
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:UTF8_Text_Preserved**

description: **The UTF8_Text_Preserved class indicates an unlimited length, whitespace-preserved text string constrained to the UTF-8 character encoding.**

enumerated_flag: F
maximum_characters: **2147483647**
minimum_characters: 1
xml_schema_base_type: **xsd:string**
character_encoding: **UTF-8**

- **Data Type:UnsignedByte**

description: **Unsigned 8-bit MSb bytes.**
enumerated_flag: **FALSE**

- **Data Type:UnsignedLSB2**

description: **Unsigned 2's-complement LSB 2-byte integers**
enumerated_flag: **FALSE**

- **Data Type:UnsignedLSB4**

description: **Unsigned 2's-complement LSB 4-byte integers**
enumerated_flag: **FALSE**

- **Data Type:UnsignedMSB2**

description: **Unsigned 2's-complement MSB 2-byte integers**
enumerated_flag: **FALSE**

- **Data Type:UnsignedMSB4**

description: **Unsigned 2's-complement MSB 4-byte integers**
enumerated_flag: **FALSE**

10. Attribute and Class Indices

11. Attribute Index

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- **acknowledgement_text** - **acknowledgement_text** in pds:Document_Desc
- **actor_name** - **actor_name** in pds:Update_Entry
- **affiliation_type** - **affiliation_type** in pds:PDS_Affiliate
- **alternate_id** - **alternate_id** in pds:Identification_Area
- **alternate_telephone_number** - **alternate_telephone_number** in pds:PDS_Affiliate
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- **application_process_subtype_id - application_process_subtype_id** in img:Telemetry_Parameters
 - **archive_status - archive_status** in ops:Data_Set_PDS3, **archive_status** in ops:Volume_PDS3
 - **archive_status_note - archive_status_note** in ops:Volume_PDS3
 - **author_list - author_list** in pds:Document_Desc
 - **axes - axes** in pds:Array_2D, **axes** in pds:Array_3D, **axes** in pds:Array_Base
 - **axis_order - axis_order** in pds:Array_2D_Image, **axis_order** in pds:Array_3D_Image, **axis_order** in pds:Array_Base
 - **a_axis_radius - a_axis_radius** in img:Image_Map_Projection
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- **begin_date - begin_date** in pds:Permissible_Value
 - **bits - bits** in pds:Table_Binary_Grouped_Bit_Field
 - **bit_mask - bit_mask** in pds:Table_Binary_Grouped_Bit_Field
 - **bytes - bytes** in pds:Header
 - **b_axis_radius - b_axis_radius** in img:Image_Map_Projection
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- **center_latitude - center_latitude** in img:Image_Map_Projection
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 - **citation_text - citation_text** in ops:Data_Set_PDS3, **citation_text** in pds:Citation
 - **class_name - class_name** in pds:Attribute_Definition, **class_name** in pds:Name_Resolution
 - **coefficient_1 - coefficient_1** in img:Coefficients_Array
 - **coefficient_2 - coefficient_2** in img:Coefficients_Array
 - **coefficient_3 - coefficient_3** in img:Coefficients_Array
 - **comment - comment** in img:Imaging, **comment** in ops:Local_Attribute, **comment** in ops:Local_DD, **comment** in pds:File, **comment** in pds:Observation_Area, **comment** in pds:TDO_Structures
 - **conceptual_domain - conceptual_domain** in pds:Value_Domain
 - **confidence_level_note - confidence_level_note** in ops:Data_Set_PDS3
 - **constant_value - constant_value** in ops:Local_Association
 - **container_type - container_type** in ops:Product_Zipped
 - **contains_primary_member - contains_primary_member** in pds:Identification_Area_Collection
 - **coordinate_system_name - coordinate_system_name** in img:Coordinate_System, **coordinate_system_name** in img:Image_Map_Projection
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 - **curating_node_id - curating_node_id** in ops:Volume_PDS3
 - **c_axis_radius - c_axis_radius** in img:Image_Map_Projection
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- **data_element_concept - data_element_concept** in pds:Attribute_Definition
 - **data_set_id - data_set_id** in img:Image_Map_Projection, **data_set_id** in ops:Data_Set_PDS3
 - **data_set_name - data_set_name** in ops:Data_Set_PDS3, **data_set_name** in pds:Subject_Area
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 - **data_type - data_type** in ops:Local_Attribute, **data_type** in pds:Array_Element, **data_type** in pds:Value_Domain
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 - **default_unit_id - default_unit_id** in pds:UnitOfMeasure, **default_unit_id** in pds:UnitOfMeasure_AmountOfSubstance, **default_unit_id** in pds:UnitOfMeasure_Angle, **default_unit_id** in pds:UnitOfMeasure_Angular_Velocity, **default_unit_id** in pds:UnitOfMeasure_Area, **default_unit_id** in pds:UnitOfMeasure_Frequency, **default_unit_id** in pds:UnitOfMeasure_Length, **default_unit_id** in pds:UnitOfMeasure_Mass, **default_unit_id** in pds:UnitOfMeasure_Misc, **default_unit_id** in pds:UnitOfMeasure_None, **default_unit_id** in pds:UnitOfMeasure_OpticalPathLength, **default_unit_id** in pds:UnitOfMeasure_Pressure, **default_unit_id** in pds:UnitOfMeasure_Radiance, **default_unit_id** in pds:UnitOfMeasure_Rates, **default_unit_id** in pds:UnitOfMeasure_Scale, **default_unit_id** in pds:UnitOfMeasure_Solid_Angle, **default_unit_id** in pds:UnitOfMeasure_Storage, **default_unit_id** in pds:UnitOfMeasure_Temperature, **default_unit_id** in pds:UnitOfMeasure_Time, **default_unit_id** in pds:UnitOfMeasure_Velocity, **default_unit_id** in pds:UnitOfMeasure_Voltage, **default_unit_id** in pds:UnitOfMeasure_Volume, **default_unit_id** in pds:Value_Domain
 - **definition - definition** in ops:Local_Attribute, **definition** in pds:Terminological_Entry
 - **description - description** in ops:Data_Set_PDS3, **description** in ops:Local_Class, **description** in pds:Document_Desc, **description** in pds:Document_Format, **description** in pds:Header, **description** in pds:Investigation, **description** in pds:Resource, **description** in pds:TNDO_Context, **description** in pds:TNDO_Supplemental, **description** in pds:Update_Entry

- **designation** - **designation** in pds:Terminological_Entry
- **directory_path_name** - **directory_path_name** in pds:Document_File, **directory_path_name** in pds:Manifest_Entry
- **document_title** - **document_title** in pds:Document_Desc
- **doi** - **doi** in pds:Bibliographic_Reference, **doi** in pds:Document_Desc, **doi** in pds:Reference

- **earth_received_start_time** - **earth_received_start_time** in img:Telemetry_Parameters
- **earth_received_stop_time** - **earth_received_stop_time** in img:Telemetry_Parameters
- **eastern_most_longitude** - **eastern_most_longitude** in img:Image_Map_Projection
- **editor_list** - **editor_list** in pds:Document_Desc
- **edit_mode_id** - **edit_mode_id** in img:Camera_Parameters
- **electronic_mail_address** - **electronic_mail_address** in pds:PDS_Affiliate, **electronic_mail_address** in pds:PDS_Guest
- **elements** - **elements** in pds:Array_Axis
- **encoding_type** - **encoding_type** in pds:Array_Base, **encoding_type** in pds:Document_File, **encoding_type** in pds:Encoded_Byte_Stream, **encoding_type** in pds:Parsable_Byte_Stream, **encoding_type** in pds:SPICE_Kernel_Text, **encoding_type** in pds:Stream_Delimited, **encoding_type** in pds:Table_Base_Binary, **encoding_type** in pds:Table_Base_Character, **encoding_type** in pds:TDO_Structures, **encoding_type** in pds:XML_Schema
- **end_date** - **end_date** in pds:Permissible_Value
- **enumerated_flag** - **enumerated_flag** in pds:ASCII_AnyURI, **enumerated_flag** in pds:ASCII_Boolean_TF, **enumerated_flag** in pds:ASCII_Date_DOY, **enumerated_flag** in pds:ASCII_Date_Time, **enumerated_flag** in pds:ASCII_Date_Time_DOY, **enumerated_flag** in pds:ASCII_Date_Time_UTC, **enumerated_flag** in pds:ASCII_Date_Time_YMD, **enumerated_flag** in pds:ASCII_File_Name, **enumerated_flag** in pds:ASCII_File_Specification_Name, **enumerated_flag** in pds:ASCII_Identifier, **enumerated_flag** in pds:ASCII_Integer, **enumerated_flag** in pds:ASCII_LID, **enumerated_flag** in pds:ASCII_LIDVID, **enumerated_flag** in pds:ASCII_Mask, **enumerated_flag** in pds:ASCII_MD5_Checksum, **enumerated_flag** in pds:ASCII_NonNegative_Integer, **enumerated_flag** in pds:ASCII_Numeric_Base16, **enumerated_flag** in pds:ASCII_Numeric_Base2, **enumerated_flag** in pds:ASCII_Real, **enumerated_flag** in pds:ASCII_Short_String_Collapsed, **enumerated_flag** in pds:ASCII_Short_String_Preserved, **enumerated_flag** in pds:ASCII_Text_Preserved, **enumerated_flag** in pds:ASCII_Time, **enumerated_flag** in pds:ASCII_VID, **enumerated_flag** in pds:Boolean, **enumerated_flag** in pds:Complex, **enumerated_flag** in pds>Data_Type, **enumerated_flag** in pds:Decimal_Integer, **enumerated_flag** in pds:Decimal_Real, **enumerated_flag** in pds:UTF8_Short_String_Collapsed, **enumerated_flag** in pds:UTF8_Short_String_Preserved, **enumerated_flag** in pds:UTF8_Text_Preserved
- **error_constant** - **error_constant** in pds:Special_Constants
- **expected_packets** - **expected_packets** in img:Telemetry_Parameters
- **exposure_duration** - **exposure_duration** in img:Camera_Parameters
- **external_standard_id** - **external_standard_id** in pds:Document_File, **external_standard_id** in pds:Encoded_Byte_Stream, **external_standard_id** in pds:Encoded_Image, **external_standard_id** in pds:File_PDF, **external_standard_id** in pds:Header, **external_standard_id** in pds:Parsable_Byte_Stream, **external_standard_id** in pds:SPICE_Kernel_Binary, **external_standard_id** in pds:SPICE_Kernel_Text, **external_standard_id** in pds:Stream_Delimited, **external_standard_id** in pds:XML_Schema

- **fields** - **fields** in pds:Inventory_LIDVID_Primary, **fields** in pds:Inventory_LIDVID_Secondary, **fields** in pds:Inventory_LID_Secondary, **fields** in pds:Manifest, **fields** in pds:Stream_Delimited, **fields** in pds:Table_Base
- **field_bytes** - **field_bytes** in pds:Stream_Delimited_Field
- **field_data_type** - **field_data_type** in pds:Stream_Delimited_Field, **field_data_type** in pds:Table_Binary_Field, **field_data_type** in pds:Table_Binary_Grouped_Bit_Field, **field_data_type** in pds:Table_Binary_Grouped_Field, **field_data_type** in pds:Table_Character_Field, **field_data_type** in pds:Table_Character_Grouped_Field, **field_data_type** in pds:Table_Field, **field_data_type** in pds:Table_Field_Checksum, **field_data_type** in pds:Table_Field_File_Specification_Name, **field_data_type** in pds:Table_Field_LID, **field_data_type** in pds:Table_Field_LIDVID
- **field_delimiter** - **field_delimiter** in pds:Stream_Delimited
- **field_description** - **field_description** in pds:Stream_Delimited_Field, **field_description** in pds:Table_Field
- **field_format** - **field_format** in pds:Stream_Delimited_Field, **field_format** in pds:Table_Field, **field_format** in pds:Table_Field_Extended, **field_format** in pds:Table_Field_File_Specification_Name, **field_format** in pds:Table_Field_LID, **field_format** in pds:Table_Field_LIDVID
- **field_length** - **field_length** in pds:Table_Field, **field_length** in pds:Table_Field_File_Specification_Name, **field_length** in pds:Table_Field_LIDVID
- **field_location** - **field_location** in pds:Table_Character_Field, **field_location** in pds:Table_Field, **field_location** in pds:Table_Field_File_Specification_Name, **field_location** in pds:Table_Field_LID, **field_location** in pds:Table_Field_LIDVID
- **field_max_logical** - **field_max_logical** in pds:Stream_Delimited_Field, **field_max_logical** in pds:Table_Field_Extended
- **field_min_logical** - **field_min_logical** in pds:Stream_Delimited_Field, **field_min_logical** in pds:Table_Field_Extended
- **field_name** - **field_name** in pds:Stream_Delimited_Field, **field_name** in pds:Table_Field, **field_name** in pds:Table_Field_Checksum, **field_name** in pds:Table_Field_File_Specification_Name, **field_name** in pds:Table_Field_LID, **field_name** in pds:Table_Field_LIDVID
- **field_number** - **field_number** in pds:Stream_Delimited_Field, **field_number** in pds:Table_Field, **field_number** in pds:Table_Field_Checksum, **field_number** in pds:Table_Field_File_Specification_Name, **field_number** in pds:Table_Field_LID, **field_number** in pds:Table_Field_LIDVID
- **field_scaling_factor** - **field_scaling_factor** in pds:Stream_Delimited_Field, **field_scaling_factor** in pds:Table_Field_Extended
- **field_unit** - **field_unit** in pds:Stream_Delimited_Field, **field_unit** in pds:Table_Field_Extended
- **field_value_offset** - **field_value_offset** in pds:Stream_Delimited_Field, **field_value_offset** in pds:Table_Field_Extended
- **file_name** - **file_name** in pds:File, **file_name** in pds:Manifest_Entry
- **file_size** - **file_size** in pds:File
- **file_specification_name** - **file_specification_name** in pds:Bundle_Member_Entry, **file_specification_name** in pds:Zipped_Member_Entry
- **filter_id** - **filter_id** in img:Camera_Parameters

- **filter_name - filter_name** in img:Camera_Parameters
 - **first_line - first_line** in pds:Image_2D_Display
 - **first_line_sample - first_line_sample** in pds:Image_2D_Display
 - **first_standard_parallel - first_standard_parallel** in img:Image_Map_Projection
 - **formation_rule - formation_rule** in pds:ASCII_Date_DOY, **formation_rule** in pds:ASCII_Date_Time, **formation_rule** in pds:ASCII_Date_Time_DOY, **formation_rule** in pds:ASCII_Date_Time_UTC, **formation_rule** in pds:ASCII_Date_Time_YMD, **formation_rule** in pds:ASCII_Date_YMD, **formation_rule** in pds:ASCII_Directory_Path_Name, **formation_rule** in pds:ASCII_DOI, **formation_rule** in pds:ASCII_File_Name, **formation_rule** in pds:ASCII_File_Specification_Name, **formation_rule** in pds:ASCII_LID, **formation_rule** in pds:ASCII_LIDVID, **formation_rule** in pds:ASCII_MD5_Checksum, **formation_rule** in pds:ASCII_Time, **formation_rule** in pds:ASCII_VID, **formation_rule** in pds>Data_Type, **formation_rule** in pds:Value_Domain
 - **format_type - format_type** in pds:Document_Format
 - **full_name - full_name** in ops:Local_DD, **full_name** in pds:Subject_Area
- **gain_mode_id - gain_mode_id** in img:Camera_Parameters
- **home - home** in pds:Identification_Area_System
 - **horizontal_framelet_offset - horizontal_framelet_offset** in img:Image_Map_Projection
- **identifier - identifier** in pds:Attribute_Definition
 - **image_id - image_id** in img:Image_Map_Projection
 - **incidence_angle - incidence_angle** in rings:Rings_Prod_Info
 - **institution_name - institution_name** in pds:Node, **institution_name** in pds:PDS_Affiliate
 - **instrument_host_name - instrument_host_name** in pds:Subject_Area
 - **instrument_name - instrument_name** in pds:Subject_Area
 - **invalid_constant - invalid_constant** in pds:Special_Constants
 - **investigation_name - investigation_name** in pds:Subject_Area
 - **is_enumerated_flag - is_enumerated_flag** in pds:Attribute_Definition
- **kernel_type - kernel_type** in pds:SPICE_Kernel_Binary, **kernel_type** in pds:SPICE_Kernel_Text
- **language - language** in pds:Terminological_Entry
 - **last_modification_date_time - last_modification_date_time** in ops:Local_DD, **last_modification_date_time** in pds:Identification_Area
 - **lidvid_reference - lidvid_reference** in pds:Name_Resolution, **lidvid_reference** in pds:Reference_Entry_Generic, **lidvid_reference** in pds:Zipped_Member_Entry
 - **lid_reference - lid_reference** in pds:Bundle_Member_Entry, **lid_reference** in pds:Reference_Entry_Generic
 - **line_display_direction - line_display_direction** in pds:Image_2D_Display
 - **line_first_pixel - line_first_pixel** in img:Image_Map_Projection
 - **line_last_pixel - line_last_pixel** in img:Image_Map_Projection
 - **line_projection_offset - line_projection_offset** in img:Image_Map_Projection
 - **local_attribute_id - local_attribute_id** in ops:Local_Association, **local_attribute_id** in ops:Local_Attribute
 - **local_identifier - local_identifier** in img:Imaging, **local_identifier** in pds:File, **local_identifier** in pds:Observing_System, **local_identifier** in pds:TDO_Structures, **local_identifier** in pds:TNDO_Supplemental
 - **local_mean_solar_time - local_mean_solar_time** in pds:Observation_Area
 - **local_true_solar_time - local_true_solar_time** in pds:Observation_Area
 - **logical_identifier - logical_identifier** in pds:Identification_Area
- **map_projection_name - map_projection_name** in img:Image_Map_Projection
 - **map_projection_rotation - map_projection_rotation** in img:Image_Map_Projection
 - **map_resolution - map_resolution** in img:Image_Map_Projection
 - **map_scale - map_scale** in img:Image_Map_Projection
 - **maximum - maximum** in pds:Object_Statistics
 - **maximum_characters - maximum_characters** in pds:ASCII_AnyURI, **maximum_characters** in pds:ASCII_Boolean_TF, **maximum_characters** in pds:ASCII_Date_DOY, **maximum_characters** in pds:ASCII_Date_Time, **maximum_characters** in pds:ASCII_Date_Time_DOY, **maximum_characters** in pds:ASCII_Date_Time_UTC, **maximum_characters** in pds:ASCII_Date_Time_YMD, **maximum_characters** in pds:ASCII_Date_YMD, **maximum_characters** in pds:ASCII_Directory_Path_Name, **maximum_characters** in pds:ASCII_DOI, **maximum_characters** in pds:ASCII_File_Name, **maximum_characters** in pds:ASCII_File_Specification_Name, **maximum_characters** in pds:ASCII_Identifier, **maximum_characters** in pds:ASCII_Integer, **maximum_characters** in pds:ASCII_LID, **maximum_characters** in pds:ASCII_LIDVID, **maximum_characters** in pds:ASCII_Mask, **maximum_characters** in pds:ASCII_MD5_Checksum, **maximum_characters** in pds:ASCII_NonNegative_Integer, **maximum_characters** in pds:ASCII_Numeric_Base16, **maximum_characters** in pds:ASCII_Numeric_Base2, **maximum_characters** in pds:ASCII_Real, **maximum_characters** in pds:ASCII_Short_String_Collapsed, **maximum_characters** in pds:ASCII_Short_String_Preserved, **maximum_characters** in pds:ASCII_Text_Preserved, **maximum_characters** in pds:ASCII_Time, **maximum_characters** in pds:ASCII_VID, **maximum_characters** in pds>Data_Type, **maximum_characters** in pds:UTF8_Short_String_Collapsed, **maximum_characters** in pds:UTF8_Short_String_Preserved, **maximum_characters** in pds:UTF8_Text_Preserved, **maximum_characters** in pds:Value_Domain
 - **maximum_latitude - maximum_latitude** in img:Image_Map_Projection
 - **maximum_occurrences - maximum_occurrences** in ops:Local_Association
 - **maximum_record_length - maximum_record_length** in pds:Stream_Delimited
 - **maximum_ring_radius - maximum_ring_radius** in rings:Rings_Prod_Info
 - **maximum_scaled_value - maximum_scaled_value** in pds:Stream_Delimited_Field, **maximum_scaled_value** in

- pds:Table_Field_Extended
- **maximum_value - maximum_value** in ops:Local_Attribute, **maximum_value** in pds:ASCII_Date_Time, **maximum_value** in pds:ASCII_Date_Time_DOY, **maximum_value** in pds:ASCII_Date_Time_UTC, **maximum_value** in pds:ASCII_Date_Time_YMD, **maximum_value** in pds:ASCII_Identifier, **maximum_value** in pds:ASCII_Integer, **maximum_value** in pds:ASCII_LID, **maximum_value** in pds:ASCII_NonNegative_Integer, **maximum_value** in pds:ASCII_Numeric_Base16, **maximum_value** in pds:ASCII_Numeric_Base2, **maximum_value** in pds:ASCII_Real, **maximum_value** in pds:ASCII_Short_String_Collapsed, **maximum_value** in pds:ASCII_Short_String_Preserved, **maximum_value** in pds:ASCII_Text_Preserved, **maximum_value** in pds:ASCII_Time, **maximum_value** in pds:ASCII_VID, **maximum_value** in pds>Data_Type, **maximum_value** in pds:UTF8_Short_String_Collapsed, **maximum_value** in pds:UTF8_Short_String_Preserved, **maximum_value** in pds:UTF8_Text_Preserved, **maximum_value** in pds:Value_Domain
- **max_record_bytes - max_record_bytes** in pds:File
- **md5_checksum - md5_checksum** in pds:File, **md5_checksum** in pds:Manifest_Entry, **md5_checksum** in pds:Object_Statistics, **md5_checksum** in pds:Zipped_Member_Entry
- **mean - mean** in pds:Object_Statistics
- **median - median** in pds:Object_Statistics
- **medium_type - medium_type** in ops:Volume_PDS3
- **minimum - minimum** in pds:Object_Statistics
- **minimum_characters - minimum_characters** in pds:ASCII_AnyURI, **minimum_characters** in pds:ASCII_Boolean_TF, **minimum_characters** in pds:ASCII_Date_DOY, **minimum_characters** in pds:ASCII_Date_Time, **minimum_characters** in pds:ASCII_Date_Time_DOY, **minimum_characters** in pds:ASCII_Date_Time_UTC, **minimum_characters** in pds:ASCII_Date_Time_YMD, **minimum_characters** in pds:ASCII_Date_YMD, **minimum_characters** in pds:ASCII_Directory_Path_Name, **minimum_characters** in pds:ASCII_DOI, **minimum_characters** in pds:ASCII_File_Name, **minimum_characters** in pds:ASCII_File_Specification_Name, **minimum_characters** in pds:ASCII_Identifier, **minimum_characters** in pds:ASCII_Integer, **minimum_characters** in pds:ASCII_LID, **minimum_characters** in pds:ASCII_LIDVID, **minimum_characters** in pds:ASCII_Mask, **minimum_characters** in pds:ASCII_MD5_Checksum, **minimum_characters** in pds:ASCII_NonNegative_Integer, **minimum_characters** in pds:ASCII_Numeric_Base16, **minimum_characters** in pds:ASCII_Numeric_Base2, **minimum_characters** in pds:ASCII_Real, **minimum_characters** in pds:ASCII_Short_String_Collapsed, **minimum_characters** in pds:ASCII_Short_String_Preserved, **minimum_characters** in pds:ASCII_Text_Preserved, **minimum_characters** in pds:ASCII_Time, **minimum_characters** in pds:ASCII_VID, **minimum_characters** in pds>Data_Type, **minimum_characters** in pds:UTF8_Short_String_Collapsed, **minimum_characters** in pds:UTF8_Short_String_Preserved, **minimum_characters** in pds:UTF8_Text_Preserved, **minimum_characters** in pds:Value_Domain
- **minimum_latitude - minimum_latitude** in img:Image_Map_Projection
- **minimum_occurrences - minimum_occurrences** in ops:Local_Association
- **minimum_ring_radius - minimum_ring_radius** in rings:Rings_Prod_Info
- **minimum_scaled_value - minimum_scaled_value** in pds:Stream_Delimited_Field, **minimum_scaled_value** in pds:Table_Field_Extended
- **minimum_value - minimum_value** in ops:Local_Attribute, **minimum_value** in pds:ASCII_Date_Time, **minimum_value** in pds:ASCII_Date_Time_DOY, **minimum_value** in pds:ASCII_Date_Time_UTC, **minimum_value** in pds:ASCII_Date_Time_YMD, **minimum_value** in pds:ASCII_Identifier, **minimum_value** in pds:ASCII_Integer, **minimum_value** in pds:ASCII_LID, **minimum_value** in pds:ASCII_NonNegative_Integer, **minimum_value** in pds:ASCII_Numeric_Base16, **minimum_value** in pds:ASCII_Numeric_Base2, **minimum_value** in pds:ASCII_Real, **minimum_value** in pds:ASCII_Short_String_Collapsed, **minimum_value** in pds:ASCII_Short_String_Preserved, **minimum_value** in pds:ASCII_Text_Preserved, **minimum_value** in pds:ASCII_Time, **minimum_value** in pds:ASCII_VID, **minimum_value** in pds>Data_Type, **minimum_value** in pds:UTF8_Short_String_Collapsed, **minimum_value** in pds:UTF8_Short_String_Preserved, **minimum_value** in pds:UTF8_Text_Preserved, **minimum_value** in pds:Value_Domain
- **missing_constant - missing_constant** in pds:Special_Constants
- **mission_phase_name - mission_phase_name** in pds:Observation_Area

- **name - name** in ops:Local_Attribute, **name** in ops:Local_Class, **name** in pds:Array_Axis, **name** in pds:Header, **name** in pds:Name_Resolution
- **name_space_id - name_space_id** in ops:Local_DD, **name_space_id** in pds:Attribute_Definition, **name_space_id** in pds:Property_Map
- **node_id - node_id** in rings:Rings_Prod_Info
- **node_name - node_name** in pds:Node, **node_name** in pds:PDS_Affiliate, **node_name** in rings:Rings_Prod_Info
- **not_applicable_constant - not_applicable_constant** in pds:Special_Constants

- **objectives_summary - objectives_summary** in pds:Investigation
- **observing_system_component_type - observing_system_component_type** in pds:Observing_System_Component
- **observing_system_name - observing_system_name** in pds:Subject_Area
- **occultation_type - occultation_type** in rings:Rings_Prod_Info
- **offset - offset** in pds:Array_Base, **offset** in pds:Encoded_Byte_Stream, **offset** in pds:Parsable_Byte_Stream, **offset** in pds:Table_Base
- **orbit_number - orbit_number** in pds:Observation_Area

- **packet_map_mask - packet_map_mask** in img:Telemetry_Parameters
- **pattern - pattern** in ops:Local_Attribute, **pattern** in pds:ASCII_Boolean_TF, **pattern** in pds:ASCII_Date_DOY, **pattern** in pds:ASCII_Date_Time_DOY, **pattern** in pds:ASCII_Date_Time_YMD, **pattern** in pds:ASCII_Date_YMD, **pattern** in pds:ASCII_DOI, **pattern** in pds:ASCII_Identifier, **pattern** in pds:ASCII_LID, **pattern** in pds:ASCII_MD5_Checksum, **pattern** in pds:ASCII_Numeric_Base16, **pattern** in pds:ASCII_Numeric_Base2, **pattern** in pds:ASCII_Time, **pattern** in pds:ASCII_VID, **pattern** in pds>Data_Type, **pattern** in pds:Value_Domain
- **pds4_merge_flag - pds4_merge_flag** in ops:Local_DD
- **phone_book_flag - phone_book_flag** in pds:PDS_Affiliate

- **planetary_occultation_flag** - **planetary_occultation_flag** in rings:Rings_Prod_Info
 - **planet_day_number** - **planet_day_number** in pds:Observation_Area
 - **positive_azimuth_direction** - **positive_azimuth_direction** in img:Az_el_coordinate_system
 - **positive_elevation_direction** - **positive_elevation_direction** in img:Az_el_coordinate_system
 - **positive_longitude_direction** - **positive_longitude_direction** in img:Image_Map_Projection
 - **postal_address_text** - **postal_address_text** in pds:PDS_Affiliate
 - **primary_name** - **primary_name** in pds:Name_Resolution
 - **process_level_id** - **process_level_id** in pds:Collection_Data
 - **producer_full_name** - **producer_full_name** in ops>Data_Set_PDS3
 - **product_class** - **product_class** in pds:Identification_Area, **product_class** in pds:Identification_Area_System
 - **product_subclass** - **product_subclass** in pds:Identification_Area, **product_subclass** in pds:Identification_Area_Document
 - **property_name** - **property_name** in pds:Property_Map_Entry
 - **property_value** - **property_value** in pds:Property_Map_Entry
 - **publication_date** - **publication_date** in ops:Volume_PDS3, **publication_date** in pds:Document_Desc
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- **radial_resolution** - **radial_resolution** in rings:Rings_Prod_Info
 - **received_packets** - **received_packets** in img:Telemetry_Parameters
 - **records** - **records** in pds:File, **records** in pds:Stream_Delimited, **records** in pds:Table_Base
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