

PDS4 Data Dictionary - V0.090609s

PDS4 Data Design Working Group

Version 0.090609s - Fri Mar 12 14:36:32 PST 2010

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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, attributes, and data types.

Audience

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

Acknowledgements

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

Scope

The PDS4 Data Dictionary defines the common and discipline level classes and attributes used to create PDS4 product labels.

Related Documents

- Planetary Science Data Dictionary - Reference Document - The online version of the PDS3 data dictionary is used as the source for data elements being carried over from the PDS3 data standards.
- PDS4 Information Model Specification, Version 0.090609m, Oct 28 2009 - Controlling Document - 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. - Controlling Document - The ISO/IEC 11179 specification provides the schema for the PDS4 data dictionary.

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 *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*.
- A *physical object* is an object that is tangible. For example, a spacecraft instrument is a *physical object*.
- A *conceptual object* is an object that is not tangible. For example, a mission is a *conceptual object*.
- A *descriptive class* provides information that is useful for the interpretation of a *data object*.
- A *structural class* provides information that defines the components and organization of a *digital object*.
- A *globally unique identifier* or GUID is a special type of identifier used to provide a reference number which is unique in any context.
Note: We

In addition there are several specific terms used in the definition of a data element.

- 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 element concept* is a concept that can be represented in the form of a *data element*, described independently of any particular representation. The *data element concept* for *calibration_lamp_state_flag* is the generic notion of a *calibration lamp state*.
- A *value domain* is specified by a list of all its *permissible values*. These can be enumerated or non-enumerated. The *value domain* for *calibration_lamp_state_flag* is an enumerated list containing "YES" and "NO".
- A *permissible value* is an expression of a *value meaning* allowed in a specific *value domain*. A *permissible value* for *calibration_lamp_state_flag* is "YES".
- A *begin date* provides the lower bound of the time interval within which the defined item is in effect.
- An *end date* provides the upper bound of the time interval within which the defined item is in effect.
- A *value meaning* is the meaning or semantic content of a *permissible value*. A *value meaning* for *calibration_lamp_state_flag* would be a definition of "YES" as a binary state.
- A *conceptual domain* is a set of valid *value meanings*. The *conceptual domain* for *calibration_lamp_state_flag* is the set of value meanings for binary state.
- 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.
- The term *formal* as used in the definition of attributes that are names indicates that an established procedure was involved in creating the name.
- The term *local* indicates a local scope where scope is an enclosing context where values and expressions are associated.

- The term *logical* as used in the definition of logical identifier indicates that the identifier logically groups a set of objects.
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PDS4 Class Definitions

<PDS4 Label - Product_Generic_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Generic - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Product_Cross_Reference_Area - Occurs 1 Times**
 - attribute: **browse_reference** value: **value** Optional
 - attribute: **calibration_reference** value: **value** Optional
 - attribute: **data_reference** value: **value** Optional
 - attribute: **geometry_reference** value: **value** Optional
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **spice_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - attribute: **thumbnail_reference** value: **value** Optional
 - **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
 - **End_Class**
 - **End_Class**
 - **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**
 - **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
 - **End_Class**
- **End_Class**
- **class: File_Area - Occurs 1 Times**

- **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
- **End_Class**
- **End_Class**

- **class: Data_Area - Occurs 1 Times**
 - **class: Any_Described_Data_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - **End_Class**
 - **End_Class**
- **End_Class**

<PDS4 Label - Product_Table_Character_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Table_Character - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**

 - **class: Product_Cross_Reference_Area - Occurs 1 Times**
 - attribute: **browse_reference** value: **value** Optional
 - attribute: **calibration_reference** value: **value** Optional
 - attribute: **data_reference** value: **value** Optional
 - attribute: **geometry_reference** value: **value** Optional
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **spice_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - attribute: **thumbnail_reference** value: **value** Optional

 - **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
 - **End_Class**

- End_Class
- class: Observation_Area - Occurs 1 Times
 - attribute: **comment** value: **value** ^{Optional}
 - attribute: **spacecraft_clock_start_count** value: **value** ^{Optional}
 - attribute: **spacecraft_clock_stop_count** value: **value** ^{Optional}
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**
- class: Any_NonDigital_Object - Occurs 0 to * Times
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** ^{Optional}
 - attribute: **any_attribute** value: **value** ^{Optional}
- End_Class
- End_Class
- class: File_Area - Occurs 1 Times
 - class: File - Occurs 1 to * Times
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** ^{Optional}
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** ^{Optional}
 - attribute: **directory_path_name** value: **value** ^{Optional}
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** ^{Optional}
 - attribute: **max_record_bytes** value: **value** ^{Optional}
 - attribute: **number_of_records** value: **value** ^{Optional}
 - End_Class
- End_Class
- class: Data_Area_Table_Character - Occurs 1 Times
 - class: Table_Character - Occurs 0 to * Times - Structure_Base_Type:Table_Base
 - class: Data_Location - Occurs 1 Times
 - attribute: **file_local_identifier** value: **value**
 - attribute: **offset** value: **value**
 - End_Class
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** ^{Optional}
 - attribute: **file_type** value: **CHARACTER**
 - attribute: **name** value: **value** ^{Optional}
 - attribute: **number_of_fields** value: **value**
 - attribute: **number_of_records** value: **value**
 - attribute: **record_bytes** value: **value**
 - class: Table_Record_Character - Occurs 1 to * Times
 - class: Table_Character_Field - Occurs 1 to * Times
 - attribute: **field_name** value: **value**
 - attribute: **field_number** value: **value** ^{Optional}
 - attribute: **field_data_type** value: **value**
 - attribute: **field_location** value: **value** ^{Optional}
 - attribute: **field_length** value: **value**
 - attribute: **field_format** value: **value** ^{Optional}
 - attribute: **field_min_physical** value: **value** ^{Optional}
 - attribute: **field_max_physical** 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: **value** Optional
- attribute: **field_description** value: **value** Optional
- **class: Object_Statistics - Occurs 0 to 1 Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **checksum** value: **value** Optional
 - attribute: **maximum** value: **value** Optional
 - attribute: **mean** value: **value** Optional
 - attribute: **median** value: **value** Optional
 - attribute: **minimum** value: **value** Optional
 - attribute: **standard_deviation** value: **value** Optional
- **End_Class**
- **class: Special_Constants - Occurs 0 to 1 Times**
 - 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_Class**
- **End_Class**
- **End_Class**
- **End_Class**
- **class: Any_Described_Data_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
- **End_Class**
- **End_Class**
- **End_Class**

<PDS4 Label - Product_Table_Binary_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Table_Binary - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Product_Cross_Reference_Area - Occurs 1 Times**
 - attribute: **browse_reference** value: **value** Optional
 - attribute: **calibration_reference** value: **value** Optional
 - attribute: **data_reference** value: **value** Optional
 - attribute: **geometry_reference** value: **value** Optional
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional

- attribute: **spice_reference** value: **value** Optional
- attribute: **target_reference** value: **value** Optional
- attribute: **thumbnail_reference** value: **value** Optional
- **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
- **End_Class**
- **End_Class**
- **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**
- **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
- **End_Class**
- **End_Class**
- **class: File_Area - Occurs 1 Times**
 - **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
 - **End_Class**
- **End_Class**
- **class: Data_Area_Table_Binary - Occurs 1 Times**
 - **class: Table_Binary - Occurs 0 to * Times - Structure_Base_Type:Table_Base**
 - **class: Data_Location - Occurs 1 Times**
 - attribute: **file_local_identifier** value: **value**
 - attribute: **offset** value: **value**
 - **End_Class**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **file_type** value: **BINARY**
 - attribute: **name** value: **value** Optional
 - attribute: **number_of_fields** value: **value**
 - attribute: **number_of_records** value: **value**
 - attribute: **record_bytes** value: **value**
 - **class: Table_Record_Binary - Occurs 1 to * Times**
 - **class: Table_Binary_Field - Occurs 1 to * Times**
 - attribute: **field_name** value: **value**

- attribute: **field_number** value: **value** Optional
- attribute: **field_data_type** value: **value**
- attribute: **field_location** value: **value** Optional
- attribute: **field_length** value: **value**
- attribute: **field_format** value: **value** Optional
- attribute: **field_min_physical** value: **value** Optional
- attribute: **field_max_physical** 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: **value** Optional
- attribute: **field_description** value: **value** Optional

- **class: Object_Statistics - Occurs 0 to 1 Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **checksum** value: **value** Optional
 - attribute: **maximum** value: **value** Optional
 - attribute: **mean** value: **value** Optional
 - attribute: **median** value: **value** Optional
 - attribute: **minimum** value: **value** Optional
 - attribute: **standard_deviation** value: **value** Optional
- **End_Class**

- **class: Special_Constants - Occurs 0 to 1 Times**
 - 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_Class**
- **End_Class**
- **End_Class**
- **End_Class**

- **class: Any_Described_Data_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
- **End_Class**
- **End_Class**
- **End_Class**

<PDS4 Label - Product_Image_Grayscale_2009-06-09p - Fri Feb 19 13:04:24 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609p>

- **class: Product_Image_Grayscale - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **puid** value: **value**
 - attribute: **data_set_id** value: **a-5-ddr-astermag-v1.0, a-5-ddr-asteroid-spin-vectors-v3.0, a-5-ddr-astnames-v1.0, a-5-ddr-pole-position-ref-v1.0, a-5-ddr-pole-position-v1.0, a-5-ddr-taxonomy-v1.0, arcb-l-rtls-3-70cm-v1.0, arcb-l-rtls-4-70cm-v1.0, arcb-l-rtls-5-12.6cm-v1.0, arcb-v-rtls-4-12.6cm-v1.0, arcb/gssr-m-rtls-5-model-v1.0, c130-e-asas-3-rdr-image-v1.0, c130-e-tims-2-edr-image-v1.0, clem1-l-h-5-dim-mosaic-v1.0, clem1-l-lidar-5-topo-v1.0, clem1-l-lwir-3-rdr-v1.0, clem1-l-rss-1-bsr-v1.0, clem1-l-rss-5-bsr-v1.0, clem1-l-rss-5-gravity-v1.0, clem1-l-spice-6-v1.0, clem1-l-u-5-dim-basemap-v1.0, clem1-l-u-5-dim-uvvis-v1.0, clem1-l/ely-a/b/u/h/l/n-2-edr-v1.0, co-d-cda-3/4/5-dust-v1.0, co-e/j/s/sw-caps-2-uncalibrated-v1.0, ...**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional

- attribute: **creation_time** value: **value**
- **End_Class**
- **class: Cross_Reference_Area - Occurs 1 Times**
 - attribute: **document_puid** value: **value** Optional
 - attribute: **instrument_host_puid** value: **value** Optional
 - attribute: **instrument_puid** value: **value** Optional
 - attribute: **mission_puid** value: **value** Optional
 - attribute: **node_puid** value: **value** Optional
 - attribute: **resource_puid** value: **value** Optional
 - attribute: **target_puid** value: **value** Optional
- **class: Reference_Collection - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
- **class: Reference_Collection_Entry - Occurs 1 to * Times**
 - attribute: **reference_identifier** value: **value** Optional
 - attribute: **reference_product_type** value: **value** Optional
 - attribute: **reference_relation_desc** value: **value** Optional
- **End_Class**
- **End_Class**
- **End_Class**
- **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**
- **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
- **End_Class**
- **End_Class**
- **class: File_Area - Occurs 1 Times**
 - **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
 - **End_Class**
- **End_Class**
- **class: Data_Area_Image_Grayscale - Occurs 1 Times**
 - **class: Image_Grayscale - Occurs 0 to * Times - Structure_Base_Type:Array_Base**
 - **class: Data_Location - Occurs 1 Times**
 - attribute: **file_local_identifier** value: **value**
 - attribute: **offset** value: **value**
 - **End_Class**

- attribute: **local_identifier** value: **value**
- attribute: **comment** value: **value** Optional
- attribute: **axes_order** value: **FIRST_INDEX_FASTEST**
- attribute: **byte_order** value: **MSBF, LSBF**
- attribute: **file_type** value: **BINARY**
- attribute: **first_element** value: **TOPLEFT**
- attribute: **min_index** value: **0**
- attribute: **number_of_axes** value: **2**

- **class: Array_Axis - Occurs 2 Times**
 - attribute: **axis_index** value: **value**
 - attribute: **axis_length** value: **value**
 - attribute: **axis_name** value: **value**
 - attribute: **axis_scale_type** value: **value**
 - attribute: **axis_unit** value: **ampere, bits, candela, coulomb, day, degree, farad, gram, gray, henry, hertz, hour, joule, kelvin, kilogram, lumen, lux, meter, minute, mole, n/a, newton, ohm, pascal, pixel, ...**
- **End_Class**

- **class: Array_Element - Occurs 1 Times**
 - attribute: **element_bytes** value: **value** Optional
 - attribute: **element_scaling_factor** value: **value** Optional
 - attribute: **element_type** value: **value**
 - attribute: **element_unit** value: **value** Optional
 - attribute: **element_value_offset** value: **value** Optional
- **End_Class**
- **End_Class**

- **class: Any_Described_Data_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
- **End_Class**
- **End_Class**
- **End_Class**

<PDS4 Label - Product_Image_Grayscale_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Image_Grayscale - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**

 - **class: Product_Cross_Reference_Area - Occurs 1 Times**
 - attribute: **browse_reference** value: **value** Optional
 - attribute: **calibration_reference** value: **value** Optional
 - attribute: **data_reference** value: **value** Optional
 - attribute: **geometry_reference** value: **value** Optional
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional

- attribute: **spice_reference** value: **value** Optional
- attribute: **target_reference** value: **value** Optional
- attribute: **thumbnail_reference** value: **value** Optional

- **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
- **End_Class**
- **End_Class**

- **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**

- **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
- **End_Class**
- **End_Class**

- **class: File_Area - Occurs 1 Times**
 - **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
 - **End_Class**
- **End_Class**

- **class: Data_Area_Image_Grayscale - Occurs 1 Times**
 - **class: Image_Grayscale - Occurs 0 to * Times - Structure_Base_Type:Array_Base**
 - **class: Data_Location - Occurs 1 Times**
 - attribute: **file_local_identifier** value: **value**
 - attribute: **offset** value: **value**
 - **End_Class**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **axes_order** value: **FIRST_INDEX_FASTEST**
 - attribute: **file_type** value: **BINARY**
 - attribute: **first_element** value: **TOPLEFT**
 - attribute: **min_index** value: **0**
 - attribute: **number_of_axes** value: **2**
 - **class: Array_Axis - Occurs 2 Times**
 - attribute: **axis_index** value: **value**
 - attribute: **axis_length** value: **value**
 - attribute: **axis_name** value: **value**
 - attribute: **axis_scale_type** value: **value**

- attribute: **axis_unit** value: ..., **ampere, bits, candela, coulomb, day, degree, farad, gram, gray, henry, hertz, hour, joule, kelvin, kilogram, lumen, lux, meter, minute, mole, n/a, newton, ohm, pascal, pixel**
 - **End_Class**
- **class: Array_Element - Occurs 1 Times**
 - attribute: **byte_order** value: **LSBF, MSBF**
 - attribute: **element_bytes** value: **value** Optional
 - attribute: **element_scaling_factor** value: **value** Optional
 - attribute: **element_type** value: **value**
 - attribute: **element_unit** value: **value** Optional
 - attribute: **element_value_offset** value: **value** Optional
 - **End_Class**
- **End_Class**
- **class: Any_Described_Data_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - **End_Class**
- **End_Class**
- **End_Class**

<PDS4 Label - Product_Stream_Delimited_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Stream_Delimited - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Product_Cross_Reference_Area - Occurs 1 Times**
 - attribute: **browse_reference** value: **value** Optional
 - attribute: **calibration_reference** value: **value** Optional
 - attribute: **data_reference** value: **value** Optional
 - attribute: **geometry_reference** value: **value** Optional
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **spice_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - attribute: **thumbnail_reference** value: **value** Optional
 - **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
 - **End_Class**
- **End_Class**

- **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**
- **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
- **End_Class**
- **End_Class**
- **class: File_Area - Occurs 1 Times**
 - **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
 - **End_Class**
- **End_Class**
- **class: Data_Area_Stream_Delimited - Occurs 1 Times**
 - **class: Stream_Delimited - Occurs 0 to * Times**
 - **class: Data_Location - Occurs 1 Times**
 - attribute: **file_local_identifier** value: **value**
 - attribute: **offset** value: **value**
 - **End_Class**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **field_delimiter** value: **0x09, 0x2C, 0x3B, 0x7C**
 - attribute: **file_type** value: **CHARACTER**
 - attribute: **maximum_record_length** value: **value**
 - attribute: **number_of_fields** value: **value**
 - attribute: **number_of_records** value: **value**
 - attribute: **record_delimiter** value: **0x0A, 0x0D, 0x0D_0x0A**
 - **class: Stream_Delimited_Record - Occurs 1 to * Times**
 - **class: Stream_Delimited_Grouped_Sequence - Occurs 1 to * Times**
 - attribute: **repetitions** value: **value** Optional
 - **class: Stream_Delimited_Field_Sequence - Occurs 1 to * Times**
 - **class: Stream_Delimited_Field - Occurs 0 to * Times**
 - attribute: **field_name** value: **value**
 - attribute: **field_number** value: **value** Optional
 - attribute: **field_data_type** value: **value**
 - attribute: **field_format** value: **value** Optional
 - attribute: **field_min_physical** value: **value** Optional
 - attribute: **field_max_physical** value: **value** Optional
 - attribute: **field_min_logical** value: **value** Optional

- attribute: **investigation_reference** value: **value** Optional
- attribute: **node_reference** value: **value** Optional
- attribute: **observing_system_reference** value: **value** Optional
- attribute: **personnel_reference** value: **value** Optional
- attribute: **publication_reference** value: **value** Optional
- attribute: **spice_reference** value: **value** Optional
- attribute: **target_reference** value: **value** Optional
- attribute: **thumbnail_reference** value: **value** Optional

- **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
- **End_Class**
- **End_Class**

- **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**

- **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
- **End_Class**
- **End_Class**

- **class: File_Area - Occurs 1 Times**
 - **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
 - **End_Class**
- **End_Class**

- **class: Data_Area_Table_Character_Grouped - Occurs 1 Times**
 - **class: Table_Character_Grouped - Occurs 0 to * Times - Structure_Base_Type:Table_Base**
 - **class: Data_Location - Occurs 1 Times**
 - attribute: **file_local_identifier** value: **value**
 - attribute: **offset** value: **value**
 - **End_Class**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **file_type** value: **CHARACTER**
 - attribute: **name** value: **value** Optional
 - attribute: **number_of_fields** value: **value**
 - attribute: **number_of_records** value: **value**
 - attribute: **record_bytes** value: **value**

- class: **Table_Record_Character_Grouped** - Occurs 1 to * Times
 - class: **Table_Character_Grouped_Sequence** - Occurs 1 to * Times
 - attribute: **repetitions** value: *value* Optional
 - class: **Table_Character_Field_Sequence** - Occurs 1 to * Times
 - class: **Table_Character_Grouped_Field** - Occurs 0 to * Times
 - attribute: **field_name** value: *value*
 - attribute: **field_number** value: *value* Optional
 - attribute: **field_data_type** value: *value*
 - attribute: **field_location** value: *value* Optional
 - attribute: **field_length** value: *value*
 - attribute: **field_format** value: *value* Optional
 - attribute: **field_min_physical** value: *value* Optional
 - attribute: **field_max_physical** 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: *value* Optional
 - attribute: **field_description** value: *value* Optional
 - class: **Object_Statistics** - Occurs 0 to 1 Times
 - attribute: **local_identifier** value: *value*
 - attribute: **comment** value: *value* Optional
 - attribute: **checksum** value: *value* Optional
 - attribute: **maximum** value: *value* Optional
 - attribute: **mean** value: *value* Optional
 - attribute: **median** value: *value* Optional
 - attribute: **minimum** value: *value* Optional
 - attribute: **standard_deviation** value: *value* Optional
 - End_Class
 - class: **Special_Constants** - Occurs 0 to 1 Times
 - 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_Class
 - End_Class
 - End_Class
 - End_Class
 - End_Class
 - End_Class
 - class: **Any_Described_Data_Object** - Occurs 0 to * Times
 - attribute: **local_identifier** value: *value*
 - End_Class
 - End_Class
- End_Class

<PDS4 Label - Product_Table_Binary_Grouped_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- class: **Product_Table_Binary_Grouped** - Occurs 1 Times
 - class: **Identification_Area** - Occurs 1 Times

- attribute: **logical_identifier** value: **value**
- attribute: **product_id** value: **value**
- attribute: **version_id** value: **value**
- attribute: **title** value: **value** Optional
- attribute: **alternate_title** value: **value** Optional
- attribute: **creation_time** value: **value**
- attribute: **collection_id** value: **value** Optional
- attribute: **collection_id_reference** value: **value** Optional
- **End_Class**
- **class: Product_Cross_Reference_Area - Occurs 1 Times**
 - attribute: **browse_reference** value: **value** Optional
 - attribute: **calibration_reference** value: **value** Optional
 - attribute: **data_reference** value: **value** Optional
 - attribute: **geometry_reference** value: **value** Optional
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **spice_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - attribute: **thumbnail_reference** value: **value** Optional
- **class: Product_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_browse, has_calibration, associated_data_product, has_publication, has_geometry, collected_by_obs_sys, associated_personnel, has_spice, collected_from_target, has_thumbnail, cited_in_pub, curated_by_node**
- **End_Class**
- **End_Class**
- **class: Observation_Area - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **spacecraft_clock_start_count** value: **value** Optional
 - attribute: **spacecraft_clock_stop_count** value: **value** Optional
 - attribute: **start_time** value: **value**
 - attribute: **stop_time** value: **value**
- **class: Any_NonDigital_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **any_attribute** value: **value** Optional
- **End_Class**
- **End_Class**
- **class: File_Area - Occurs 1 Times**
 - **class: File - Occurs 1 to * Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **checksum** value: **value** Optional
 - attribute: **directory_path_name** value: **value** Optional
 - attribute: **file_name** value: **value**
 - attribute: **file_size** value: **value** Optional
 - attribute: **max_record_bytes** value: **value** Optional
 - attribute: **number_of_records** value: **value** Optional
 - **End_Class**
- **End_Class**

- class: **Data_Area_Table_Binary_Grouped** - Occurs 1 Times
- class: **Table_Binary_Grouped** - Occurs 0 to * Times - Structure_Base_Type:Table_Base
 - class: **Data_Location** - Occurs 1 Times
 - attribute: **file_local_identifier** value: *value*
 - attribute: **offset** value: *value*
 - **End_Class**
 - attribute: **local_identifier** value: *value*
 - attribute: **comment** value: *value* Optional
 - attribute: **file_type** value: **BINARY**
 - attribute: **name** value: *value* Optional
 - attribute: **number_of_fields** value: *value*
 - attribute: **number_of_records** value: *value*
 - attribute: **record_bytes** value: *value*
- class: **Table_Record_Binary_Grouped** - Occurs 1 to * Times
 - class: **Table_Binary_Grouped_Sequence** - Occurs 1 to * Times
 - attribute: **repetitions** value: *value* Optional
 - class: **Table_Binary_Field_Sequence** - Occurs 1 to * Times
 - class: **Table_Binary_Grouped_Bit_Field** - Occurs 0 to * Times
 - attribute: **field_name** value: *value*
 - attribute: **field_number** value: *value* Optional
 - attribute: **field_data_type** value: *value*
 - attribute: **field_location** value: *value* Optional
 - attribute: **field_length** value: *value*
 - attribute: **field_format** value: *value* Optional
 - attribute: **field_min_physical** value: *value* Optional
 - attribute: **field_max_physical** 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: *value* Optional
 - attribute: **field_description** value: *value* Optional
 - attribute: **field_bit_mask** value: *value* Optional
 - attribute: **field_bits** value: *value*
 - attribute: **field_start_bit** value: *value*
 - class: **Object_Statistics** - Occurs 0 to 1 Times
 - attribute: **local_identifier** value: *value*
 - attribute: **comment** value: *value* Optional
 - attribute: **checksum** value: *value* Optional
 - attribute: **maximum** value: *value* Optional
 - attribute: **mean** value: *value* Optional
 - attribute: **median** value: *value* Optional
 - attribute: **minimum** value: *value* Optional
 - attribute: **standard_deviation** value: *value* Optional
 - **End_Class**
 - class: **Special_Constants** - Occurs 0 to 1 Times
 - 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_Class**

- End_Class
- class: Table_Binary_Grouped_Field - Occurs 0 to * Times
 - attribute: **field_name** value: **value**
 - attribute: **field_number** value: **value** Optional
 - attribute: **field_data_type** value: **value**
 - attribute: **field_location** value: **value** Optional
 - attribute: **field_length** value: **value**
 - attribute: **field_format** value: **value** Optional
 - attribute: **field_min_physical** value: **value** Optional
 - attribute: **field_max_physical** 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: **value** Optional
 - attribute: **field_description** value: **value** Optional
- class: Object_Statistics - Occurs 0 to 1 Times
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **checksum** value: **value** Optional
 - attribute: **maximum** value: **value** Optional
 - attribute: **mean** value: **value** Optional
 - attribute: **median** value: **value** Optional
 - attribute: **minimum** value: **value** Optional
 - attribute: **standard_deviation** value: **value** Optional
- End_Class
- class: Special_Constants - Occurs 0 to 1 Times
 - 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_Class
- End_Class
- End_Class
- End_Class
- End_Class
- End_Class
- class: Any_Described_Data_Object - Occurs 0 to * Times
 - attribute: **local_identifier** value: **value**
- End_Class
- End_Class
- End_Class

<PDS4 Label - Document_Set_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- class: Document_Set - Occurs 1 Times
 - class: Identification_Area - Occurs 1 Times
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**

- attribute: **collection_id** value: **value** Optional
 - attribute: **collection_id_reference** value: **value** Optional
 - **End_Class**
 - **class: Document_Cross_Reference_Area - Occurs 0 to 1 Times**
 - **class: Generic_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **associated_with**
 - **End_Class**
 - **End_Class**
 - **class: Document_Set_Desc - Occurs 1 Times**
 - attribute: **title** value: **value** Optional
 - attribute: **acknowledgement** value: **value** Optional
 - attribute: **author_list** value: **value**
 - attribute: **description** value: **value** Optional
 - attribute: **doi** value: **value** Optional
 - attribute: **publication_date** value: **value**
 - attribute: **rights** value: **PUBLIC_DOMAIN**
 - **End_Class**
 - **End_Class**
-

<PDS4 Label - Software_Set_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Software_Set - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_id_reference** value: **value** Optional
 - **End_Class**
 - **class: Software_Cross_Reference_Area - Occurs 0 to 1 Times**
 - **class: Generic_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **associated_with**
 - **End_Class**
 - **End_Class**
 - **class: Software_Set_Desc - Occurs 1 Times**
 - attribute: **version_id** value: **value**
 - attribute: **author_list** value: **value**
 - attribute: **description** value: **value**
 - attribute: **name** value: **value**
 - attribute: **programmers_manual_identifier** value: **value**
 - attribute: **software_id** value: **value**
 - attribute: **software_type** value: **n/a, unk**
 - attribute: **users_manual_identifier** value: **value**
 - **End_Class**
 - **End_Class**
-

<PDS4 Label - Product_Target_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Target - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
 - **class: Target - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **type** value: **value**
 - **End_Class**
- **End_Class**
-

<PDS4 Label - Product_Resource_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Resource - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional

- attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
- **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Resource - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **description** value: **value**
 - attribute: **resource_class** value: **application.catalog, application.datasetbrowser, application.datasetbrowserc, application.datasetbrowserp, application.datasetbrowserx, application.interface, application.targetbrowser, application.website, data.volume, data.volumefuture, data.volumeoffline, data.volumeremote, data.volumesuperceded**
 - attribute: **resource_link** value: **value**
 - attribute: **resource_status** value: **value**
 - **End_Class**
- **End_Class**

<PDS4 Label - Product_Personnel_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Personnel - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Personnel - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **full_name** value: **value**

- attribute: **key_electronic_mail_address** value: **value**
- attribute: **last_name** value: **value**
- attribute: **pds_affiliation** value: **value**
- attribute: **registration_date** value: **value**
- **End_Class**
- **End_Class**

<PDS4 Label - Product_Node_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>

<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Node - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Node - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **da_contact_puid** value: **value**
 - attribute: **description** value: **value** Optional
 - attribute: **node_institution_name** value: **european_space_agency, goddard_space_flight_center, hq, jet_propulsion_laboratory, johns_hopkins_university_applied_physics_laboratory, massachusetts_institute_of_technology, n/a, nasa/ames_research_center, new_mexico_state_university, seti_institute, stanford_university, united_states_geological_survey, university_of_california_los_angeles, university_of_hawaii, university_of_iowa, university_of_maryland, washington_university**
 - attribute: **node_manager_puid** value: **value**
 - attribute: **node_name** value: **central, engineering, european_space_agency, geosciences, hq, imaging, n/a, national_space_science_data_center, navigation_ancillary_information_facility, planetary_atmospheres, planetary_plasma_interactions, planetary_plasma_interactions_-_ucla, planetary_rings, radio_science, radiometry, small_bodies**
 - attribute: **operations_contact_puid** value: **value**
- **class: Discipline_Description - Occurs 1 Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - attribute: **discipline_desc** value: **value**
 - attribute: **discipline_name** value: **atmospheres, geosciences, image_processing, imaging_spectroscopy, navigation_ancillary_information_facility, plasma_interactions, radiometry, rings, small_bodies**

- End_Class
- End_Class
- End_Class

<PDS4 Label - Product_Investigation_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Investigation - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** ^{Optional}
 - attribute: **alternate_title** value: **value** ^{Optional}
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** ^{Optional}
 - attribute: **collection_lid_reference** value: **value** ^{Optional}
 - End_Class
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** ^{Optional}
 - attribute: **instrument_reference** value: **value** ^{Optional}
 - attribute: **investigation_reference** value: **value** ^{Optional}
 - attribute: **node_reference** value: **value** ^{Optional}
 - attribute: **observing_system_reference** value: **value** ^{Optional}
 - attribute: **personnel_reference** value: **value** ^{Optional}
 - attribute: **publication_reference** value: **value** ^{Optional}
 - attribute: **target_reference** value: **value** ^{Optional}
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** ^{Optional}
 - attribute: **lidvid_reference** value: **value** ^{Optional}
 - attribute: **reference_type** value: **value**
 - End_Class
 - End_Class
 - **class: Investigation - Occurs 1 Times**
 - attribute: **comment** value: **value** ^{Optional}
 - attribute: **description** value: **value**
 - attribute: **objectives_summary** value: **value**
 - attribute: **start_date** value: **value**
 - attribute: **stop_date** value: **value**
 - End_Class
- End_Class

<PDS4 Label - Product_Mission_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Mission - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** ^{Optional}
 - attribute: **alternate_title** value: **value** ^{Optional}
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** ^{Optional}

- attribute: **collection_lid_reference** value: **value** Optional
- **End_Class**
- **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Mission - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **description** value: **value**
 - attribute: **objectives_summary** value: **value**
 - attribute: **start_date** value: **value**
 - attribute: **stop_date** value: **value**
 - **End_Class**
- **End_Class**

<PDS4 Label - Product_Observing_System_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Observing_System - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**

- **End_Class**
 - **class: Observing_System - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **description** value: **value** Optional
 - attribute: **type** value: **value**
 - **End_Class**
 - **End_Class**
-

<PDS4 Label - Product_Instrument_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Product_Instrument - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Context_Cross_Reference_Area - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **personnel_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
 - **End_Class**
 - **class: Instrument - Occurs 1 Times**
 - attribute: **comment** value: **value** Optional
 - attribute: **description** value: **value** Optional
 - attribute: **type** value: **value**
 - **End_Class**
 - **class: Any_Described_Data_Object - Occurs 0 to * Times**
 - attribute: **local_identifier** value: **value**
 - **End_Class**
 - **End_Class**
-

<PDS4 Label - Image_Map_Projection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Image_Map_Projection - Occurs 1 Times**
 - 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_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: **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_Class**

<PDS4 Label - Archive_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Archive_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
- **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional

- attribute: **target_reference** value: **value** Optional
- **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
- **End_Class**
- **End_Class**
- **class: Calibration_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**
- **class: Data_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional

- End_Class
- class: Collection_Cross_Reference - Occurs 0 to * Times
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - class: Reference_Entry - Occurs 0 to * Times
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - End_Class
- End_Class
- class: Index_Member_Entry - Occurs 0 to * Times
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- End_Class
- class: Index_Reference_Entry - Occurs 0 to * Times
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- End_Class
- End_Class
- class: Document_Collection - Occurs 1 Times
 - class: Identification_Area - Occurs 1 Times
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - End_Class
 - class: Collection_Cross_Reference - Occurs 0 to * Times
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - class: Reference_Entry - Occurs 0 to * Times
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - End_Class
 - End_Class
 - class: Index_Member_Entry - Occurs 0 to * Times

- attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**
- **class: Software_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
 - **End_Class**
 - **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
 - **End_Class**
 - **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
 - **End_Class**
 - **End_Class**
 - **End_Class**

<PDS4 Label - Generic_Collection_2009-06-09r - Sat Mar 06 06:36:28 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609r>

- **class: Generic_Collection - Occurs 1 Times**

- **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **puid** value: **value**
 - attribute: **data_set_id** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_lid_reference** value: **value** Optional
- **End_Class**
- **class: Collection_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Collection_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**

<PDS4 Label - Generic_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Generic_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional

- attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**

<PDS4 Label - Browse_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Browse_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**

<PDS4 Label - Calibration_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Calibration_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
- **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
- **End_Class**
- **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**

<PDS4 Label - Data_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Data_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
- **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional

- attribute: **instrument_reference** value: **value** Optional
- attribute: **investigation_reference** value: **value** Optional
- attribute: **node_reference** value: **value** Optional
- attribute: **observing_system_reference** value: **value** Optional
- attribute: **publication_reference** value: **value** Optional
- attribute: **target_reference** value: **value** Optional

- **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
- **End_Class**
- **End_Class**

- **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
- **End_Class**

- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**

<PDS4 Label - Document_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Document_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**

 - **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional

 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
 - **End_Class**

 - **class: Index_Member_Entry - Occurs 0 to * Times**

- attribute: **lid_reference** value: **value** Optional
- attribute: **lidvid_reference** value: **value** Optional
- attribute: **reference_type** value: **has_member**
- **End_Class**
- **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
- **End_Class**
- **End_Class**

<PDS4 Label - Software_Collection_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Software_Collection - Occurs 1 Times**
 - **class: Identification_Area - Occurs 1 Times**
 - attribute: **logical_identifier** value: **value**
 - attribute: **product_id** value: **value**
 - attribute: **version_id** value: **value**
 - attribute: **title** value: **value** Optional
 - attribute: **alternate_title** value: **value** Optional
 - attribute: **creation_time** value: **value**
 - attribute: **collection_id** value: **value** Optional
 - attribute: **collection_lid_reference** value: **value** Optional
 - **End_Class**
 - **class: Collection_Cross_Reference - Occurs 0 to * Times**
 - attribute: **instrument_host_reference** value: **value** Optional
 - attribute: **instrument_reference** value: **value** Optional
 - attribute: **investigation_reference** value: **value** Optional
 - attribute: **node_reference** value: **value** Optional
 - attribute: **observing_system_reference** value: **value** Optional
 - attribute: **publication_reference** value: **value** Optional
 - attribute: **target_reference** value: **value** Optional
 - **class: Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **value**
 - **End_Class**
 - **End_Class**
 - **class: Index_Member_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_member**
 - **End_Class**
 - **class: Index_Reference_Entry - Occurs 0 to * Times**
 - attribute: **lid_reference** value: **value** Optional
 - attribute: **lidvid_reference** value: **value** Optional
 - attribute: **reference_type** value: **has_update**
 - **End_Class**
 - **End_Class**

<PDS4 Label - Az_el_coordinate_system_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>

<Generated from the PDS4 ontology model Version 0.090609s>

- **class: Az_el_coordinate_system - Occurs 1 Times**

- 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_inertl_sphercl_coords**, **ecliptic_inertl_sphercl_coords**, **equatorial_inert_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**

- **class: Origin_Offset_Vector - Occurs 1 Times**

- attribute: **x** value: **value**
- attribute: **y** value: **value**
- attribute: **z** value: **value**

- **End_Class**

- **class: Origin_Rotation_Quaternion - Occurs 1 Times**

- attribute: **cosine** value: **value**
- attribute: **x** value: **value**
- attribute: **y** value: **value**
- attribute: **z** value: **value**

- **End_Class**

- **End_Class**

<PDS4 Label - CAHV_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>

<Generated from the PDS4 ontology model Version 0.090609s>

- **class: CAHV - Occurs 1 Times**

- attribute: **local_identifier** value: **value**
- attribute: **comment** value: **value** Optional

- **class: Coordinate_System - Occurs 1 Times**

- 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_Class**

- **class: Axis_Vector - Occurs 1 Times**

- attribute: **x** value: **value**
- attribute: **y** value: **value**
- attribute: **z** value: **value**

- **End_Class**

- **class: Center_Vector - Occurs 1 Times**

- attribute: **x** value: **value**
- attribute: **y** value: **value**
- attribute: **z** value: **value**

- **End_Class**

- **class: Horizontal_Vector - Occurs 1 Times**

- attribute: **x** value: **value**

- attribute: **y** value: **value**
- attribute: **z** value: **value**
- **End_Class**
- **class: Vertical_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
- **End_Class**
- **End_Class**

<PDS4 Label - CAHVOR_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: CAHVOR - Occurs 1 Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** ^{Optional}
- **class: Coordinate_System - Occurs 1 Times**
 - 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_Class**
- **class: Axis_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
- **End_Class**
- **class: Center_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
- **End_Class**
- **class: Horizontal_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
- **End_Class**
- **class: Vertical_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
- **End_Class**
- **class: Vector - Occurs 1 Times - Structure_Base_Type:TBD base class name**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
- **End_Class**
- **class: Coefficients_Array - Occurs 1 Times**
 - 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_Class**
- **End_Class**

<PDS4 Label - CAHVORE_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: CAHVORE - Occurs 1 Times**
 - attribute: **local_identifier** value: **value**
 - attribute: **comment** value: **value** Optional
 - **class: Coordinate_System - Occurs 1 Times**
 - 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_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**
 - **End_Class**
 - **class: Axis_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
 - **End_Class**
 - **class: Center_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
 - **End_Class**
 - **class: Horizontal_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
 - **End_Class**
 - **class: Vertical_Vector - Occurs 1 Times**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
 - **End_Class**
 - **class: Vector - Occurs 1 Times - Structure_Base_Type:TBD base class name**
 - attribute: **x** value: **value**
 - attribute: **y** value: **value**
 - attribute: **z** value: **value**
 - **End_Class**
 - **class: Coefficients_Array - Occurs 1 Times**
 - 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_Class**

- **class: Coefficients_Array - Occurs 1 Times**
 - 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_Class**
- **End_Class**

<PDS4 Label - Camera_Parameters_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Camera_Parameters - Occurs 1 Times**
 - 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_Class**

<PDS4 Label - Coefficients_Array_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Coefficients_Array - Occurs 1 Times**
 - 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_Class**

<PDS4 Label - Telemetry_Parameters_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Telemetry_Parameters - Occurs 1 Times**
 - 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_Class**
-

<PDS4 Label - Rings_Prod_Info_2009-06-09s - Fri Mar 12 14:36:32 PST 2010>
 <Generated from the PDS4 ontology model Version 0.090609s>

- **class: Rings_Prod_Info - Occurs 1 Times**
 - attribute: **incidence_angle** value: **value**
 - attribute: **maximum_ring_radius** value: **value**
 - attribute: **minimum_ring_radius** value: **value**
 - attribute: **node_id** value: **RINGS**
 - attribute: **node_name** value: **Planetary Rings Node**
 - 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_Class**
-

PDS4 Attributes - Fri Mar 12 14:36:32 PST 2010

Generated from the PDS4 Ontology Model Version 0.090609s

acknowledgement

title: **acknowledgement** in common:Document_Set_Desc
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The acknowledgement element provides a recognition of another's validity, authority, or right.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ACKNOWLEDGEMENT** - administration_record: [Proto_DD_090609s](#)
-

actor

title: **actor** in common:Update_Entry
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The actor element provide information about the person or organization performing the act.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ACTOR** - administration_record: [Proto_DD_090609s](#)
-

added-character

title: **added-character** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **added-character = ? not defined by this International Standard ? ; An added-character is any other member of the implementation character-set which is bound to the member having the corresponding symbol in an ISO/IEC 10646 character-set. An added-character may be referenced by name, by 8-digit short UCS identifier, or by 4-digit short UCS identifier, as specified by ISO/IEC 10646. For example, "Unable to render embedded object: File (QUOTATION MARK) not found.", "Unable to render embedded object: File (U+0022) not found.", and "Unable to render embedded object: File (U+0022) not found." are all equivalent: a string literal that contains the one character, a quotation mark.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ADDED-CHARACTER** - administration_record: [Proto_DD_090609s](#)
-

address_text

title: **address_text** in common:Priviledged_User

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The address text element provides an mailing address.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `**`
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TEXT** - administration_record: [Proto_DD_090609s](#)
-

alternate_telephone_number

title: **alternate_telephone_number** in common:Priviledged_User

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The alternate_telephone_number data element provides an alternate telephone number for an individual or node. (Includes the area code.)**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NUMBER** - administration_record: [Proto_DD_090609s](#)
-

alternate_title

title: **alternate_title** in common:Identification_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The alternate title element provides one or more alternate names for a product.**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

any_attribute

title: **any_attribute** in common:Any_NonDigital_Object
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ATTRIBUTE** - administration_record: Proto_DD_090609s
-

apostrophe

title: **apostrophe** in common:Lexical_Definition
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **apostrophe = ''' ; (apostrophe)**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_APOSTROPHE** - administration_record: Proto_DD_090609s
-

application_process_id

title: **application_process_id** in img:Telemetry_Parameters
 steward: **img**
 name space id: **img**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The application_process_id identifies the process, or source, which created the data.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **100**
 - unit_of_measure_name: **n/a**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

application_process_name

title: **application_process_name** in img:Telemetry_Parameters
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The application_process_name element provides the name associated with the source or process which created the data.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **256**
 - unit_of_measure_name: **n/a**
 - 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: **MINUTES** - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

application_process_subtype_id

title: **application_process_subtype_id** in img:Telemetry_Parameters
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The application_process_subtype_id element identifies the source or subprocess that created the data.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **2**
 - unit_of_measure_name: **n/a**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

author_list

title: **author_list** in common:Document_Set_Desc
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The author list element provides a list of the composers of the work.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LIST** - administration_record: [Proto_DD_090609s](#)
-

author_list

title: **author_list** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The author list element provides a list of the composers of the work.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LIST** - administration_record: [Proto_DD_090609s](#)
-

axes_order

title: **axes_order** in common:Array_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axes order element indicates the axis index that varies the fastest with respect to storage order.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FIRST_INDEX_FASTEST** - begin date: 2009-06-09 - end date: 2019-12-31
 - definition: The index of the first axis varies fastest. - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ORDER** - administration_record: [Proto_DD_090609s](#)
-

axes_order

title: **axes_order** in common:Image_3D

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axes order element indicates the axis index that varies the fastest with respect to storage order.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FIRST_INDEX_FASTEST** - begin date: 2009-06-09 - end date: 2019-12-31
 - definition: The index of the first axis varies fastest. - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ORDER** - administration_record: [Proto_DD_090609s](#)
-

axes_order

title: **axes_order** in common:Image_Grayscale

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axes order element indicates the axis index that varies the fastest with respect to axis element storage order.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FIRST_INDEX_FASTEST** - begin date: 2009-06-09 - end date: 2019-12-31
 - definition: The index of the first axis varies fastest. - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ORDER** - administration_record: [Proto_DD_090609s](#)
-

axis_index

title: **axis_index** in common:Array_Axis

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axis index element provides the index of the axis in an ordered set. The index of the first axis has a value of 1.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_INDEX** - administration_record: [Proto_DD_090609s](#)
-

axis_length

title: **axis_length** in common:Array_Axis

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axis_length attribute is the length of the axis in terms of the number of 'elements'. For example, a 1024 pixel by 768 pixel image would have the entry: axis_length = (1024,768).**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

axis_name

title: **axis_name** in common:Array_Axis

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axis_name attribute should indicate the label or significance of the dimension.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

axis_scale_type

title: **axis_scale_type** in common:Array_Axis
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axis_type attribute is an attribute proposed for use in those cases where the physical dimensions of the axes do not vary linearly. Possible values might include, linear, exponential, logarithmic, etc.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

axis_unit

title: **axis_unit** in common:Array_Axis
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The axis_unit attribute is the units of each axis (the units associated with axis_name) (e.g., pixels, seconds, degrees, etc.).**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **none**
 - permissible value: **ampere** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **bits** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **candela** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **coulomb** - 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: **degree** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **farad** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **gram** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **gray** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **henry** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **hertz** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **hour** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **joule** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **kelvin** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **kilogram** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **lumen** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **lux** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **meter** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **minute** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **mole** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **newton** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ohm** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **pascal** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **pixel** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

a_axis_radius

title: **a_axis_radius** in common:Image_Map_Projection

steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RADIUS** - administration_record: [Proto_DD_090609s](#)
-

a_axis_radius

title: **a_axis_radius** in [img:Image_Map_Projection](#)
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RADIUS** - administration_record: [Proto_DD_090609s](#)
-

bit_string

title: **bit_string** in [common:Digital_Object](#)
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The bit string element is a sequence of digital bits. It is the content of a digital object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_STRING** - administration_record: [Proto_DD_090609s](#)
-

bound-character

title: **bound-character** in [common:Lexical_Definition](#)
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **bound-character = non-quote-character | quote ; The bound-characters, and the escape character, are required in any implementation to be associated with particular members of the implementation character set. - A bound-character is required to be associated with the member having the corresponding symbol, if any, in any implementation character-set derived from ISO/IEC 10646.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**

- conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_BOUND-CHARACTER** - administration_record: Proto_DD_090609s
-

Bricks

title: **Bricks** in ops:Delivery_Manifest
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **An integer value indicating the number of data bricks in this delivery.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

Brick_Description

title: **Brick_Description** in ops:Delivery_Brick_Sequence
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Brick_Description provides a text description of the storage brick and includes at least the brick's storage format.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

Brick_Identifier

title: **Brick_Identifier** in ops:Delivery_Brick_Sequence
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The identifier of the data brick " Best practice is to use the data brick serial number.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-_a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_IDENTIFIER** - administration_record: Proto_DD_090609s
-

Brick_Identifier

title: **Brick_Identifier** in ops:Delivery_Manifest
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The identifier of the data brick " Best practice is to use the data brick serial number. – Within the delivery manifest section, this is the identifier of THIS Data Brick**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_IDENTIFIER** - administration_record: Proto_DD_090609s
-

Brick_Number

title: **Brick_Number** in ops:Delivery_Brick_Sequence
 steward: **ops**
 name space id: **ops**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **An integer value indicating the sequence number of this brick. A SIP written to two bricks would use one (1) as the first brick number.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NUMBER** - administration_record: Proto_DD_090609s
-

browse_reference

title: **browse_reference** in common:Product_Cross_Reference_Area
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The browse reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)*:[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

bytes

title: **bytes** in common:Header
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The bytes element provides the number of bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

byte_order

title: **byte_order** in common:Array_Element

steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The byte order element indicates whether the most significant or the least significant byte is placed first in the sequence of bytes that comprise an element.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **LSBF** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **MSBF** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ORDER** - administration_record: [Proto_DD_090609s](#)
-

b_axis_radius

title: **b_axis_radius** in common:Image_Map_Projection
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RADIUS** - administration_record: [Proto_DD_090609s](#)
-

b_axis_radius

title: **b_axis_radius** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RADIUS** - administration_record: [Proto_DD_090609s](#)
-

calibration_reference

title: **calibration_reference** in common:Product_Cross_Reference_Area
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The calibration reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: `*URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*):[a-zA-Z]{1}([-a-zA-Z0-9]*)`

- a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

center_latitude

title: **center_latitude** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LATITUDE** - administration_record: Proto_DD_090609s
-

center_latitude

title: **center_latitude** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LATITUDE** - administration_record: Proto_DD_090609s
-

center_longitude

title: **center_longitude** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-180.0**
 - maximum_value: **360.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LONGITUDE** - administration_record: Proto_DD_090609s
-

center_longitude

title: **center_longitude** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-180.0**
 - maximum_value: **360.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LONGITUDE** - administration_record: Proto_DD_090609s
-

character-literal

title: **character-literal** in common:Lexical_Definition
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **character-literal = apostrophe, any-character, apostrophe ; any-character = bound-character | added-character | escape-character ; escape-character = escape, character-name, escape ; character-name = identifier, Unknown macro: { " ", identifier }**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-.a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CHARACTER-LITERAL** - administration_record: Proto_DD_090609s
-

checksum

title: **checksum** in common:File
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The checksum element provides a computed value which depends on the contents of a block of data and is used to detect corruption of the data.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CHECKSUM** - administration_record: Proto_DD_090609s
-

checksum

title: **checksum** in common:Object_Statistics
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The checksum element provides a computed value which depends on the contents of a block of data and is used to detect corruption of the data.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CHECKSUM** - administration_record: Proto_DD_090609s
-

citation_desc

title: **citation_desc** in common:Citation
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The citation_desc contains a citation for the product or DATA_SET_INFORMATION object in which it appears. It provides a string that may be used to cite the product (data set) in a publication. It should follow the standard citation order as outlined in Appendix B reference scientific journals that cite electronic publications (e.g. The CITATION_DESC must contain sufficient information to locate the product or data set in the PDS archives. For example the CITATION_DESC in a DATA_SET_INFORMATION object must contain the DATA_SET_ID, it will also likely contain VOLUME_ID information for the archive volumes on as appropriate. Note that if CITATION_DESC is used within any product label within a data set a CITATION_DESC DATA_SET Example CITATION_DESC = 'Cunningham PAPERS Planetary Data System**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

coefficient_1

title: **coefficient_1** in img:Coefficients_Array
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_1** - administration_record: [Proto_DD_090609s](#)
-

coefficient_2

title: **coefficient_2** in img:Coefficients_Array
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_2** - administration_record: [Proto_DD_090609s](#)
-

coefficient_3

title: **coefficient_3** in img:Coefficients_Array
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**

- minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_3** - administration_record: Proto_DD_090609s
-

collection_id

title: **collection_id** in common:Identification_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The collection id element provides a unique identifier for a collection.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

collection_lid_reference

title: **collection_lid_reference** in common:Identification_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The collection_lid_reference provide a logical identifier for the primary collection this product is a member of.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

comment

title: **comment** in common:File

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The comment element provides a remark or observation.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

comment

title: **comment** in common:Observation_Area

steward: **common**

name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The comment element provides a remark or observation.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

comment

title: **comment** in common:TDO_Structures
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The comment element provides a remark or observation.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

comment

title: **comment** in common:TNDO_Context
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The comment element provides a remark or observation.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

comment

title: **comment** in common:TNDO_Supplemental
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The comment element provides a remark or observation.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

comment

title: **comment** in img:Imaging
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The comment element provides an optional remark or observation about the current class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: 1
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

compile_notes

title: **compile_notes** in common:Software_Source
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The compile notes element provides a brief statement giving particulars about the compilation of the software source.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: 1
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NOTES** - administration_record: Proto_DD_090609s
-

content_type

title: **content_type** in common:File_PDF
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The content type element identifies the class of which an object is a member.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: 1
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

coordinate_system_name

title: **coordinate_system_name** in common:Image_Map_Projection
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: 1

- maximum_characters: **30**
 - unit_of_measure_name: **none**
 - 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_sphercl_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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

coordinate_system_name

title: **coordinate_system_name** in img:Coordinate_System

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - 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_sphercl_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

- conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

coordinate_system_name

title: **coordinate_system_name** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - 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_sphrcI_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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

coordinate_system_type

title: **coordinate_system_type** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **25**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

coordinate_system_type

title: **coordinate_system_type** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **25**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

cosine

title: **cosine** in img:Quaternion
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COSINE** - administration_record: [Proto_DD_090609s](#)
-

creation_time

title: **creation_time** in common:File
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The creation time element provides a data and time indicating when this object was created.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **sec**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

creation_time

title: **creation_time** in common:Identification_Area
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The creation time element provides a data and time indicating when this object was created.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**

- format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **sec**
 - conceptual domain: **CD_TIME** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DATE_TIME** - administration_record: Proto_DD_090609s
-

c_axis_radius

title: **c_axis_radius** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_RADIUS** - administration_record: Proto_DD_090609s
-

c_axis_radius

title: **c_axis_radius** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_RADIUS** - administration_record: Proto_DD_090609s
-

Data_Path

title: **Data_Path** in ops:Delivery_Manifest

steward: **ops**

name space id: **ops**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The relative path from the data brick mount point to the data directories. E.g. Data_Path = "/" indicates that the data directories are at the mount point of the disk brick.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PATH** - administration_record: Proto_DD_090609s
-

data_reference

title: **data_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

data_set_id

title: **data_set_id** in common:Data_Set_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data set id provides a formal name used to refer to a data set.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **40**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

data_set_id

title: **data_set_id** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data set id provides a formal name used to refer to a data set.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **40**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

data_set_id

title: **data_set_id** in img:Data_Set_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_**

- a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 40
 - unit_of_measure_name: none
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

data_set_id

title: **data_set_id** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - 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 - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 40
 - unit_of_measure_name: none
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:ASCII_CHARACTER_STRING

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 255
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENUMERATED** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:ASCII_ENUMERATED

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 255
 - permissible value: **TRUE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENUMERATED** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Boolean
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **TRUE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Complex
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Date
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)

- description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENUMERATED** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Date_Time

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENUMERATED** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Enumerated_Constrained

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **TRUE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENUMERATED** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Integer

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENUMERATED** - administration_record: Proto_DD_090609s
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Octet

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Real

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Real_Double

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Scaled

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_String_Constrained

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Time

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Character_Time_Interval

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
- conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)

- data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Complex

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Data_Type

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Decimal_Integer

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Decimal_Real

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **FALSE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_is_enumerated

title: **data_type_is_enumerated** in common:Void

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type is enumerated element indicates whether the data type is enumerated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **TRUE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
-

data_type_length

title: **data_type_length** in common:BIT

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

data_type_length

title: **data_type_length** in common:COMPLEX_8_BYTE

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **8** - begin date: 2009-06-09 - end date: 2019-12-31
- conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)

- data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:Data_Type

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:IEEE754Double

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **8** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:IEEE754Single

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **4** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:LSB_INTEGER_8_BYTE

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **8** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:MSB_INTEGER_8_BYTE

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **8** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:SignedLSB2

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:SignedLSB4

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **4** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LENGTH** - administration_record: Proto_DD_090609s
-

data_type_length

title: **data_type_length** in common:SignedMSB2

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

data_type_length

title: **data_type_length** in common:SignedMSB4

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **4** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

data_type_length

title: **data_type_length** in common:UnsignedByte

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type length element provides the extent from beginning to end of a series of units such as bytes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **1** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

data_type_pattern

title: **data_type_pattern** in common:Character_Time

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)

- description: **The data type pattern element provides an example or sample of a data type.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **ISO_8601** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **See ISO/IEC_11404_Value_Syntax** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PATTERN** - administration_record: Proto_DD_090609s
-

data_type_pattern

title: **data_type_pattern** in common:Data_Type

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type pattern element provides an example or sample of a data type.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **See ISO/IEC_11404_Value_Syntax** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PATTERN** - administration_record: Proto_DD_090609s
-

data_type_unit

title: **data_type_unit** in common:ASCII_BOOLEAN_YN

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

data_type_unit

title: **data_type_unit** in common:ASCII_CHARACTER_STRING

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type unit provides the unit designation of a data type.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
- conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s

- data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_COMPLEX

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_DATE

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_DATE_TIME

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_ENUMERATED

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_INTEGER

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_OCTET

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_REAL

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31

- conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

data_type_unit

title: **data_type_unit** in common:ASCII_REAL_DOUBLE

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_SCALED

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_TIME

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:ASCII_TIME_INTERVAL

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:Boolean

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BIT** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:Character

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_UNIT** - administration_record: [Proto_DD_090609s](#)
-

data_type_unit

title: **data_type_unit** in common:Complex

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The data type unit provides the unit designation of a data type.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**

- permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

data_type_unit

title: **data_type_unit** in common:Data_Type

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

data_type_unit

title: **data_type_unit** in common:Decimal_Integer

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

data_type_unit

title: **data_type_unit** in common:Decimal_Real

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The data type unit provides the unit designation of a data type.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BYTE** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

date_time

title: **date_time** in common:Update_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The date_time element provides the date and time of an event.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **sec**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

da_contact_puid

title: **da_contact_puid** in common:Node

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The da_contact indicates the node person responsible for data administration.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id:version_id**
 - pattern: **URN:NASA:PDS:[a-zA-Z]{1}([a-zA-Z0-9])*:[a-zA-Z]{1}([a-zA-Z0-9])***
 - minimum_characters: **16**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PUID** - administration_record: [Proto_DD_090609s](#)
-

Delivery_Description

title: **Delivery_Description** in ops:Delivery_Manifest

steward: **ops**

name space id: **ops**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **A text description of the delivery.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

Delivery_Identifier

title: **Delivery_Identifier** in ops:Delivery_Manifest

steward: **ops**

name space id: **ops**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The identifier for the delivery. Formation Rule: Curating_Node_Id + "" + Subnode_Id + "" + yy-mm-ddThhmmss - e.g. IMAGING_USGS_2008-06-23T120000.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9])***
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Document_Format

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Document_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Header

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Instrument

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******

- minimum_characters: 1
 - maximum_characters: 2147483647
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

description

title: **description** in common:Instrument_Host

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: 1
 - maximum_characters: 2147483647
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

description

title: **description** in common:Investigation

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: 1
 - maximum_characters: 2147483647
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

description

title: **description** in common:Node

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: 1
 - maximum_characters: 2147483647
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

description

title: **description** in common:Observing_System

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Resource

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

description

title: **description** in common:Update_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The description element provides a statement, picture in words, or account that describes. Dublin Core: An account of the resource.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

digit-string

title: **digit-string** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **digit-string = digit-like**,
Unknown macro: { digit-like }
; digit-like = digit | ISO/IEC-10176-extended-digit ;
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIGIT-STRING** - administration_record: [Proto_DD_090609s](#)
-

digit

title: **digit** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **digit = "0" | "1" | "2" | "3" | "4" | "5" | "6" | "7" | "8" | "9" ;**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIGIT** - administration_record: [Proto_DD_090609s](#)
-

directory_delimiter

title: **directory_delimiter** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The directory delimiter is a character that separates a directory name from another directory name or from a file name.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DELIMITER** - administration_record: [Proto_DD_090609s](#)
-

directory_name_token

title: **directory_name_token** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The directory name token is a substring that names a directory. The maximum size of a directory name is thirty characters.**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TOKEN** - administration_record: Proto_DD_090609s
-

directory_path_name

title: **directory_path_name** in common:File
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The directory path name element provides a sequence of directory names.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

discipline_desc

title: **discipline_desc** in common:Discipline_Description
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The discipline_desc element provides a description for the science discipline**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

discipline_name

title: **discipline_name** in common:Discipline_Description
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The discipline_name element identifies the major academic or scientific domain or specialty of interest to an individual or to a PDS Node.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - permissible value: **atmospheres** - 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: **image_processing** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **imaging_spectroscopy** - 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: **plasma_interactions** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **radiometry** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **rings** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **small_bodies** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

doi

title: **doi** in common:Citation

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The Digital Object Identifier (DOI) System is for identifying content objects in the digital environment. DOI names are assigned to any entity for use on digital networks. They are used to provide current information, including where they (or information about them) can be found on the Internet. Information about a digital object may change over time, including where to find it, but its DOI name will not change.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DOI** - administration_record: [Proto_DD_090609s](#)
-

doi

title: **doi** in common:Document_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The Digital Object Identifier (DOI) System is for identifying content objects in the digital environment. DOI names are assigned to any entity for use on digital networks. They are used to provide current information, including where they (or information about them) can be found on the Internet. Information about a digital object may change over time, including where to find it, but its DOI name will not change.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DOI** - administration_record: [Proto_DD_090609s](#)
-

earth_received_start_time

title: **earth_received_start_time** in img:Telemetry_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The earth_received_start_time element provides the beginning time at which telemetry was received during a time period of interest. This should be represented in UTC system format.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

earth_received_stop_time

title: **earth_received_stop_time** in img:Telemetry_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The earth_received_stop_time element provides the ending time for receiving telemetry during a time period of interest. This should be represented in the UTC system format.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

eastern_most_longitude

title: **eastern_most_longitude** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LONGITUDE** - administration_record: [Proto_DD_090609s](#)
-

eastern_most_longitude

title: **eastern_most_longitude** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LONGITUDE** - administration_record: [Proto_DD_090609s](#)
-

edit_mode_id

title: **edit_mode_id** in img:Camera_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-_**

- a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

electronic_mail_address

title: **electronic_mail_address** in common:Priviledged_User

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The electronic mail address element provides a standard email address. This address is a multi-part address where the first part (the user name) identifies a unique user. The "at sign" separates the user name from the host name which uniquely identifies the mail server.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ADDRESS** - administration_record: Proto_DD_090609s
-

electronic_mail_id

title: **electronic_mail_id** in common:Personnel_Electronic_Mail

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The electronic mail id provides a formal name used to refer to an electronic mail address.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

electronic_mail_type

title: **electronic_mail_type** in common:Personnel_Electronic_Mail

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - permissible value: **arpanet** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **bitnet** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **decnet** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **e-mail** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **gsfc** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **internat** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **internet** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **jems** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **mail (gte_telenet)** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nasamail** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nsfnet** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nsi/decnet** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **span/nsi** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **tcp/ip** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **telemail** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **unk** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

element_bytes

title: **element_bytes** in common:Array_Element

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **No longer needed.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

element_scaling_factor

title: **element_scaling_factor** in common:Array_Element

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The element_scaling_factor attribute is the scaling factor to be applied to each stored value in an array in order to recover the original observation value. For each element in a stored array, the observed value (Ov) is calculated from the stored value (Sv) thus: $Ov = (Sv * element_scaling_factor) + element_offset$**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_FACTOR** - administration_record: Proto_DD_090609s
-

element_type

title: **element_type** in common:Array_Element

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The element_type attribute is the hardware representation used to store a single array element value in a physical file. Potential values include things like "IEEE 32-bit float", "byte", "MSB integer", etc.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**

- conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

element_type

title: **element_type** in common:Array_Element_Character

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The element_type attribute is the hardware representation used to store a single array element value in a physical file. Potential values include things like "IEEE 32-bit float", "byte", "MSB integer", etc.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **ASCII_CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

element_type

title: **element_type** in common:Array_Element_Integer

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The element_type attribute is the hardware representation used to store a single array element value in a physical file. Potential values include things like "IEEE 32-bit float", "byte", "MSB integer", etc.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **MSB_INTEGER_8** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **MSB_INTEGER_4** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **MSB_INTEGER_2** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **MSB_INTEGER_1** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ASCII_INTEGER** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

element_type

title: **element_type** in common:Array_Element_Real

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The element_type attribute is the hardware representation used to store a single array element value in a physical file. Potential values include things like "IEEE 32-bit float", "byte", "MSB integer", etc.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **IEEE_REAL** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **COMPLEX** - 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_COMPLEX** - begin date: 2009-06-09 - end date: 2019-12-31

- conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

element_unit

title: **element_unit** in common:Array_Element

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The element_unit attribute is the units of the element (e.g., Data Number, I/F, etc.).**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

element_value_offset

title: **element_value_offset** in common:Array_Element

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The element_offset attribute is the fixed value to be added to each real value stored in an array object in order to recover the original observation value. For each element in a stored array, the observed value (Ov) is calculated from the stored value (Sv) thus: $Ov = (Sv * element_scaling_factor) + element_offset$**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

encoding_type

title: **encoding_type** in common:Document_Part

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The encoding_type element classifies an encoding.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - permissible value: **clem-jpeg-0** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-0_decompressed** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-1** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-1_decompressed** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-2** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-2_decompressed** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-3** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **clem-jpeg-3_decompressed** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **decompressed** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **gif87a** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **gif89a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **huffman_first_difference** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **jp2** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **pdf-adobe-1.1** - 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: **previous_pixel** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ps-adobe-1.0** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ps-adobe-2.0** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ps-adobe-3.0** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **rice** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **run_length** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **zip** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

error_constant

title: **error_constant** in common:Special_Constants

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The error_value attribute is a flag value used to indicate an array element or table field entry that is known to be in error for one reason or another.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_CONSTANT** - administration_record: [Proto_DD_090609s](#)
-

escape

title: **escape** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **escape = "!" ; (exclamation point)**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ESCAPE** - administration_record: [Proto_DD_090609s](#)
-

expected_packets

title: **expected_packets** in img:Telemetry_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**

- conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

exposure_duration

title: **exposure_duration** in img:Camera_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - 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 - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **ms**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DURATION** - administration_record: Proto_DD_090609s
-

external_standard_id

title: **external_standard_id** in common:Encoded_Stream_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The external standard id provides a formal name used to refer to a standard that is not under local governance.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

fax_number

title: **fax_number** in common:Priviledged_User

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The fax_number data element provides the area code and telephone number needed to transmit data to an individual or a node via facsimile machine.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NUMBER** - administration_record: Proto_DD_090609s
-

field_bits

title: **field_bits** in common:Table_Binary_Grouped_Bit_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **The field bits element provides the number of bits in a field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

field_bit_mask

title: **field_bit_mask** in common:Table_Binary_Grouped_Bit_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field bit mask element provides a bit mask for a field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_MASK** - administration_record: Proto_DD_090609s
-

field_bytes

title: **field_bytes** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field bytes element provides the number of bytes in a field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

field_data_type

title: **field_data_type** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field data type classifies a data field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

field_data_type

title: **field_data_type** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field data type classifies a data field.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**

- pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

field_delimiter

title: **field_delimiter** in common:Stream_Delimited

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field delimiter provides the character or characters used to indicate the end of the extent of a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **2**
 - maximum_characters: **255**
 - unit_of_measure_name: **none**
 - permissible value: **0x09** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **0x2C** - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DELIMITER** - administration_record: [Proto_DD_090609s](#)
-

field_description

title: **field_description** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field description element provide a statement, picture in words, or account that describes a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

field_description

title: **field_description** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field description element provide a statement, picture in words, or account that describes a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

field_format

title: **field_format** in common:Stream_Delimited_Field
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field format element indicates the organization of a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FORMAT** - administration_record: [Proto_DD_090609s](#)
-

field_format

title: **field_format** in common:Table_Field
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field format element indicates the organization of a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FORMAT** - administration_record: [Proto_DD_090609s](#)
-

field_length

title: **field_length** in common:Table_Field
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field length element indicates the extent from beginning to end of a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

field_location

title: **field_location** in common:Table_Field
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field location element indicates a position on a memory device capable of storing an object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOCATION** - administration_record: [Proto_DD_090609s](#)
-

field_max_logical

title: **field_max_logical** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field max logical element provides the maximum logical value allowed in a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOGICAL** - administration_record: [Proto_DD_090609s](#)
-

field_max_logical

title: **field_max_logical** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field max logical element provides the maximum logical value allowed in a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOGICAL** - administration_record: [Proto_DD_090609s](#)
-

field_max_physical

title: **field_max_physical** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field max physical element provides the maximum physical value allowed in a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PHYSICAL** - administration_record: [Proto_DD_090609s](#)
-

field_max_physical

title: **field_max_physical** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field max physical element provides the maximum physical value allowed in a field.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*

- a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 255
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PHYSICAL** - administration_record: Proto_DD_090609s
-

field_min_logical

title: **field_min_logical** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field min logical element provides the minimum logical value allowed in a field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 255
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LOGICAL** - administration_record: Proto_DD_090609s
-

field_min_logical

title: **field_min_logical** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field min logical element provides the minimum logical value allowed in a field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 255
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LOGICAL** - administration_record: Proto_DD_090609s
-

field_min_physical

title: **field_min_physical** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field min physical element provides the minimum physical value allowed in a field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 255
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PHYSICAL** - administration_record: Proto_DD_090609s
-

field_min_physical

title: **field_min_physical** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field min physical element provides the minimum physical value allowed in a field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PHYSICAL** - administration_record: [Proto_DD_090609s](#)
-

field_name

title: **field_name** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field name element provides a word or a combination of words by which a field is known.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

field_name

title: **field_name** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field name element provides a word or a combination of words by which a field is known.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

field_number

title: **field_number** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field number element indicates the location of a field in an ordered series.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NUMBER** - administration_record: [Proto_DD_090609s](#)
-

field_number

title: **field_number** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field number element indicates the location of a field in an ordered series.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NUMBER** - administration_record: [Proto_DD_090609s](#)
-

field_scaling_factor

title: **field_scaling_factor** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field scaling factor element provides a number which scales or multiplies with the value of the field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FACTOR** - administration_record: [Proto_DD_090609s](#)
-

field_scaling_factor

title: **field_scaling_factor** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field scaling factor element provides a number which scales or multiplies with the value of the field.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FACTOR** - administration_record: [Proto_DD_090609s](#)
-

field_start_bit

title: **field_start_bit** in common:Table_Binary_Grouped_Bit_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The field start bit element provides the position of the first bit within an ordered sequence of bits.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**

- conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_BIT** - administration_record: Proto_DD_090609s
-

field_unit

title: **field_unit** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field unit element indicates the unit of measurement associated with a field value.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

field_unit

title: **field_unit** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field unit element indicates the unit of measurement associated with a field value.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNIT** - administration_record: Proto_DD_090609s
-

field_value_offset

title: **field_value_offset** in common:Stream_Delimited_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The field value offset element provides a number that indicates a displacement from the value in the field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

field_value_offset

title: **field_value_offset** in common:Table_Field

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **The field value offset element provides a number that indicates a displacement from the value in the field.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

files

title: **files** in common:Software_Binary
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The files element provides the number of files.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

files

title: **files** in common:Software_Format
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The files element provides the number of files.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

files

title: **files** in common:Software_Script
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The files element provides the number of files.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

files

title: **files** in common:Software_Source
steward: **common**

name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The files element provides the number of files.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

file_extension_token

title: **file_extension_token** in common:Lexical_Definition
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The file extension token is a substring that provides a file extension. The maximum size of a directory name is tbd characters.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TOKEN** - administration_record: Proto_DD_090609s
-

file_local_identifier

title: **file_local_identifier** in common:Data_Location
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The file local identifier element provides a formal name used to refer to a file description within the label. A file local identifier is unique within a label.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **class_name**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: Proto_DD_090609s
-

file_name

title: **file_name** in common:File
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The file name element provides a word or a combination of words by which a file is known.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **120**

- unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

file_name

title: **file_name** in common:File_Location

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The file name element provides a word or a combination of words by which a file is known.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **120**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

file_name_delimiter

title: **file_name_delimiter** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The file name delimiter separates the file name from the file extension.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DELIMITER** - administration_record: Proto_DD_090609s
-

file_name_token

title: **file_name_token** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The file name token is a substring that names a directory. The maximum size of a file name is thirty characters.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TOKEN** - administration_record: Proto_DD_090609s
-

file_size

title: **file_size** in common:File

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file size element provides the size of the file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_SIZE** - administration_record: [Proto_DD_090609s](#)
-

file_type

title: **file_type** in common:Array_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file name element classifies a file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

file_type

title: **file_type** in common:Encoded_Stream_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file name element classifies a file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

file_type

title: **file_type** in common:Table_Base_Binary

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file name element classifies a file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **BINARY** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

file_type

title: **file_type** in common:Table_Base_Character

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file name element classifies a file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

file_type

title: **file_type** in common:TDO_Structures

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file name element classifies a file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

file_type

title: **file_type** in common:Unencoded_Stream_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The file name element classifies a file.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **CHARACTER** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

filter_id

title: **filter_id** in img:Camera_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)

- 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

filter_name

title: **filter_name** in [img:Camera_Parameters](#)

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **32**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

first_element

title: **first_element** in common:Array_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The first element indicates the position of the first element of an array.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **TOPLEFT** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ELEMENT** - administration_record: [Proto_DD_090609s](#)
-

first_standard_parallel

title: **first_standard_parallel** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PARALLEL** - administration_record: [Proto_DD_090609s](#)
-

first_standard_parallel

title: **first_standard_parallel** in img:Image_Map_Projection

steward: **img**

name space id: **img:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PARALLEL** - administration_record: [Proto_DD_090609s](#)
-

format_type

title: **format_type** in common:Document_Format
steward: **common**
name space id: **common:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The format type element classifies format.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **ADOBE_PDF** - 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: **MS_WORD** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **PDF** - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

fraction_digits

title: **fraction_digits** in common:Array_Element_Real
steward: **common**
name space id: **common:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The fraction digits indicates the number of digits in the faction part of a real number.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

full_name

title: **full_name** in common:Personnel
steward: **common**
name space id: **common:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)

- description: **The full_name element provides the complete name or identifier for a person or object. For an individual full name includes the name as well as titles and suffixes. For an object in some cases corresponds to an 'id'.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

gain_mode_id

title: **gain_mode_id** in [img:Camera_Parameters](#)

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

geometry_reference

title: **geometry_reference** in [common:Product_Cross_Reference_Area](#)

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The geometry reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: `*URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*)*:[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

horizontal_framelet_offset

title: **horizontal_framelet_offset** in [common:Image_Map_Projection](#)

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)

- description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **1**
 - maximum_value: **INF**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

horizontal_framelet_offset

title: **horizontal_framelet_offset** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **1**
 - maximum_value: **INF**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

image_id

title: **image_id** in common:Image_Map_Projection
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

image_id

title: **image_id** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

incidence_angle

title: **incidence_angle** in rings:Rings_Prod_Info
steward: **rings**
name space id: **rings**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **180.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ANGLE** - administration_record: [Proto_DD_090609s](#)
-

install_notes

title: **install_notes** in common:Software_Script
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The install notes element provides a brief statement giving particulars about the installation of the software.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NOTES** - administration_record: [Proto_DD_090609s](#)
-

instrument_host_reference

title: **instrument_host_reference** in common:Collection_Cross_Reference
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The instrument host reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*):[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

instrument_host_reference

title: **instrument_host_reference** in common:Context_Cross_Reference_Area
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The instrument host reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

instrument_host_reference

title: **instrument_host_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The instrument host reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

instrument_reference

title: **instrument_reference** in common:Collection_Cross_Reference

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The instrument reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

instrument_reference

title: **instrument_reference** in common:Context_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The instrument reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
- value domain - administration_record: [Proto_DD_090609s](#)

- data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

instrument_reference

title: **instrument_reference** in common:Product_Cross_Reference_Area
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The instrument reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

invalid_constant

title: **invalid_constant** in common:Special_Constants
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The invalid constant element provides a value that indicates the original value was invalid.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CONSTANT** - administration_record: Proto_DD_090609s
-

investigation_reference

title: **investigation_reference** in common:Collection_Cross_Reference
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The investigation reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object..**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**

- maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

investigation_reference

title: **investigation_reference** in common:Context_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The investigation reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object..**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

investigation_reference

title: **investigation_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The investigation reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object..**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

ISO/IEC_646

title: **ISO/IEC_646** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **ISO/IEC 10176 describes the notion of classes of letter-like characters (outside of ISO/IEC 646 letters A through Z), digit-like characters (outside of ISO/IEC 646 digits 0 through 9), and special characters that are all used in identifiers.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_646** - administration_record: Proto_DD_090609s
-

kernel_type

title: **kernel_type** in common:SPICE_Kernel

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The kernel type element classifies a SPICE kernel.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **18**
 - unit_of_measure_name: **none**
 - permissible value: **clock_coefficients** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ephemeris** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **events** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **instrument** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **leapseconds** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **pointing** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **target_constants** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

key_electronic_mail_address

title: **key_electronic_mail_address** in common:Personnel

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The key electronic mail address element provides a unique identifier for each individual who is allowed access to the PDS.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ADDRESS** - administration_record: [Proto_DD_090609s](#)
-

key_electronic_mail_address

title: **key_electronic_mail_address** in common:Priviledged_User

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The key electronic mail address element provides a unique identifier for each individual who is allowed access to the PDS. Once assigned, this address does not change, even if it becomes invalid.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ADDRESS** - administration_record: [Proto_DD_090609s](#)
-

last_name

title: **last_name** in common:Personnel
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The last_name element provides the last name (surname) of an individual.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

letter

title: **letter** in common:Lexical_Definition
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **letter = "a" | "b" | "c" | "d" | "e" | "f" | "g" | "h" | "i" | "j" | "k" | "l" | "m" | "n" | "o" | "p" | "q" | "r" | "s" | "t" | "u" | "v" | "w" | "x" | "y" | "z" | "A" | "B" | "C" | "D" | "E" | "F" | "G" | "H" | "I" | "J" | "K" | "L" | "M" | "N" | "O" | "P" | "Q" | "R" | "S" | "T" | "U" | "V" | "W" | "X" | "Y" | "Z" ;**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LETTER** - administration_record: Proto_DD_090609s
-

lexical_identifier

title: **lexical_identifier** in common:Lexical_Definition
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **identifier = initial-letter-like, Unknown macro: { pseudo-letter-like } ; initial-letter-like = letter-like | special-like ; letter-like = letter | ISO/IEC-10176-extended-letter ; pseudo-letter-like = letter-like | digit-like | underscore ; digit-like = digit | ISO/IEC-10176-extended-digit ; special-like = underscore | ISO/IEC-10176-extended-special ;**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_IDENTIFIER** - administration_record: Proto_DD_090609s
-

lidvid_reference

title: **lidvid_reference** in common:Reference_Entry
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **The lidvid_reference element provides the logical_identifier plus a version_id for a product.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

lid_reference

title: **lid_reference** in common:Reference_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The lid reference element provides the logical_identifier for a product.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

line_first_pixel

title: **line_first_pixel** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PIXEL** - administration_record: Proto_DD_090609s
-

line_first_pixel

title: **line_first_pixel** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PIXEL** - administration_record: Proto_DD_090609s
-

line_last_pixel

title: **line_last_pixel** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PIXEL** - administration_record: [Proto_DD_090609s](#)
-

line_last_pixel

title: **line_last_pixel** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PIXEL** - administration_record: [Proto_DD_090609s](#)
-

line_projection_offset

title: **line_projection_offset** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **pixel**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_OFFSET** - administration_record: [Proto_DD_090609s](#)
-

line_projection_offset

title: **line_projection_offset** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **pixel**
- conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)

- data element concept: **DEC_OFFSET** - administration_record: [Proto_DD_090609s](#)
-

local_identifier

title: **local_identifier** in common:Any_Described_Data_Object

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The local identifier element provides a formal name used to refer to a local object. The local identifier is unique within a label. To all for record level access, the value of local_identifier should be the class name. If several instances of the same class exist in a product, then a numeric suffix is appended.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **class_name**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

local_identifier

title: **local_identifier** in common:File

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The local identifier element provides a formal name used to refer to a local object. The local identifier is unique within a label. To all for record level access, the value of local_identifier should be the class name. If several instances of the same class exist in a product, then a numeric suffix is appended.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **class_name**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

local_identifier

title: **local_identifier** in common:TDO_Structures

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The local identifier element provides a formal name used to refer to a local object. The local identifier is unique within a label. To all for record level access, the value of local_identifier should be the class name. If several instances of the same class exist in a product, then a numeric suffix is appended.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **class_name**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

local_identifier

title: **local_identifier** in common:TNDO_Supplemental

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The local identifier element provides a formal name used to refer to a local object. The local identifier is unique within a label. To all for record level access, the value of local_identifier should be the class name. If several instances of the same class exist in a product, then a numeric suffix is appended.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **class_name**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

local_identifier

title: **local_identifier** in img:Imaging

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **class_name**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOCAL_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

logical_identifier

title: **logical_identifier** in common:Identification_Area

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **A logical identifier identifies the set of all versions of an object. It is an object identifier without a version.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **14**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LOGICAL_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

map_projection_desc

title: **map_projection_desc** in common:Data_Set_Map_Projection

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: 1
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

map_projection_desc

title: **map_projection_desc** in img:Data_Set_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: **
 - minimum_characters: 1
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

map_projection_name

title: **map_projection_name** in img:Data_Set_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **(Old map_projection_type). This element identifies the type of projection characteristic of a given map.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - 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
- conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
- data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)

map_projection_name

title: **map_projection_name** in img:Image_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **(Old map_projection_type). This element identifies the type of projection characteristic of a given map.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

map_projection_rotation

title: **map_projection_rotation** in common:Image_Map_Projection

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **180.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ROTATION** - administration_record: [Proto_DD_090609s](#)
-

map_projection_rotation

title: **map_projection_rotation** in img:Image_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)

- description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **180.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ROTATION** - administration_record: Proto_DD_090609s
-

map_projection_type

title: **map_projection_type** in common:Data_Set_Map_Projection
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **28**
 - unit_of_measure_name: **none**
 - 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: **lamert_azimuthal_equal_area** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **lamert_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
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

map_projection_type

title: **map_projection_type** in common:Image_Map_Projection
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **28**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

map_resolution

title: **map_resolution** in common:Image_Map_Projection
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **pix/deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RESOLUTION** - administration_record: [Proto_DD_090609s](#)
-

map_resolution

title: **map_resolution** in img:Image_Map_Projection
 steward: **img**
 name space id: **img**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **pix/deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RESOLUTION** - administration_record: [Proto_DD_090609s](#)
-

map_scale

title: **map_scale** in common:Image_Map_Projection
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km/pix**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_SCALE** - administration_record: Proto_DD_090609s
-

map_scale

title: **map_scale** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **km/pix**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_SCALE** - administration_record: Proto_DD_090609s
-

maximum

title: **maximum** in common:Object_Statistics
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The maximum element indicates the highest value in an object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_MAXIMUM** - administration_record: Proto_DD_090609s
-

maximum_latitude

title: **maximum_latitude** in common:Image_Map_Projection
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LATITUDE** - administration_record: Proto_DD_090609s
-

maximum_latitude

title: **maximum_latitude** in img:Image_Map_Projection
steward: **img**

name space id: **img:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LATITUDE** - administration_record: [Proto_DD_090609s](#)
-

maximum_record_length

title: **maximum_record_length** in common:Stream_Delimited
steward: **common**
name space id: **common:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The maximum record length indicates the highest number of bytes that can exist in a record.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LENGTH** - administration_record: [Proto_DD_090609s](#)
-

maximum_ring_radius

title: **maximum_ring_radius** in rings:Rings_Prod_Info
steward: **rings**
name space id: **rings:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RADIUS** - administration_record: [Proto_DD_090609s](#)
-

max_exclusive

title: **max_exclusive** in common:Array_Element_Integer
steward: **common**
name space id: **common:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The max exclusive element provides a value that is greater than all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_EXCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

max_exclusive

title: **max_exclusive** in common:Array_Element_Real
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The max exclusive element provides a value that is greater than all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_EXCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

max_inclusive

title: **max_inclusive** in common:Array_Element_Integer
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The max inclusive element provides a value that is greater than or equal to all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_INCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

max_inclusive

title: **max_inclusive** in common:Array_Element_Real
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The max inclusive element provides a value that is greater than or equal to all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_INCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

max_record_bytes

title: **max_record_bytes** in common:File
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The max record bytes element provides the maximum number of bytes that may be contained in a record.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**

- minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

mean

title: **mean** in common:Object_Statistics

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The mean element (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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_MEAN** - administration_record: [Proto_DD_090609s](#)
-

median

title: **median** in common:Object_Statistics

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The median element is the number separating the higher half of a list of numbers from the lower half.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **1**
 - maximum_value: **INF**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_MEDIAN** - administration_record: [Proto_DD_090609s](#)
-

minimum

title: **minimum** in common:Object_Statistics

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The minimum element indicates the lowest value in an object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_MINIMUM** - administration_record: [Proto_DD_090609s](#)
-

minimum_latitude

title: **minimum_latitude** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LATITUDE** - administration_record: [Proto_DD_090609s](#)
-

minimum_latitude

title: **minimum_latitude** in img:Image_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LATITUDE** - administration_record: [Proto_DD_090609s](#)
-

minimum_ring_radius

title: **minimum_ring_radius** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_RADIUS** - administration_record: [Proto_DD_090609s](#)
-

min_exclusive

title: **min_exclusive** in common:Array_Element_Integer

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The min exclusive element provides a value that is less than all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_EXCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

min_exclusive

title: **min_exclusive** in common:Array_Element_Real
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The min exclusive element provides a value that is less than all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_EXCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

min_inclusive

title: **min_inclusive** in common:Array_Element_Integer
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The min inclusive element provides a value that is less than or equal to all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_INCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

min_inclusive

title: **min_inclusive** in common:Array_Element_Real
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The min inclusive element provides a value that is less than or equal to all the values in the object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_INCLUSIVE** - administration_record: [Proto_DD_090609s](#)
-

min_index

title: **min_index** in common:Array_Base
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The min index element provides a value that indicates the positional of the element at the beginning of a sequence of elements. This value is typically 0 or 1.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**

- maximum_characters: **255**
 - permissible value: **0** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_INDEX** - administration_record: Proto_DD_090609s
-

missing_constant

title: **missing_constant** in common:Special_Constants

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The missing constant element provides a value that indicates the original value was missing.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CONSTANT** - administration_record: Proto_DD_090609s
-

name

title: **name** in common:Header

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: **1**
 - maximum_characters: **61**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

name

title: **name** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]}*
 - minimum_characters: **1**
 - maximum_characters: **61**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

name

title: **name** in common:Table_Base

steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **61**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

namespace_id

title: **namespace_id** in common:Property_Map
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The namespace id element provides a formal name used to refer to a namespace.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

node_id

title: **node_id** in common:PDS_Staff
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node id provides a formal name used to refer to a node.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **12**
 - unit_of_measure_name: **none**
 - permissible value: **atmos** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **en** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **esa** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **geoscience** - 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: **imaging** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **imaging-jpl** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **naif** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nssdc** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ppi-ucla** - 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: **rings** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **rs** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **sbn** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

node_id

title: **node_id** in ops:Delivery_Manifest

steward: **ops**

name space id: **ops**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node id provides a formal name used to refer to a node.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **12**
 - unit_of_measure_name: **none**
 - permissible value: **atmos** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **en** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **esa** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **geoscience** - 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: **imaging** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **imaging-jpl** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **naif** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nssdc** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **ppi-ucla** - 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: **riings** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **rs** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **sbn** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

node_id

title: **node_id** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node_id element provides the node id assigned to a science community node.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **12**
 - unit_of_measure_name: **none**
 - permissible value: **RINGS** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

node_institution_name

title: **node_institution_name** in common:Node

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The institution_name element identifies a university research center**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**

- maximum_characters: **60**
 - unit_of_measure_name: **none**
 - permissible value: **european_space_agency** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **goddard_space_flight_center** - 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: **jet_propulsion_laboratory** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **johns_hopkins_university_applied_physics_laboratory** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **massachusetts_institute_of_technology** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nasa/ames_research_center** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **new_mexico_state_university** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **seti_institute** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **stanford_university** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **united_states_geological_survey** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_california_los_angeles** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_hawaii** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_iowa** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_maryland** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **washington_university** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

node_institution_name

title: **node_institution_name** in common:PDS_Staff

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The institution_name element identifies a university research center**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **none**
 - permissible value: **european_space_agency** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **goddard_space_flight_center** - 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: **jet_propulsion_laboratory** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **johns_hopkins_university_applied_physics_laboratory** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **massachusetts_institute_of_technology** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **nasa/ames_research_center** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **new_mexico_state_university** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **seti_institute** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **stanford_university** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **united_states_geological_survey** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_california_los_angeles** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_hawaii** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_iowa** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **university_of_maryland** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **washington_university** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)

node_manager_puid

title: **node_manager_puid** in common:Node

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node manager puid element indicates the node manager.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**

- format: **URN:NASA:PDS:product_id:version_id**
 - pattern: **URN:NASA:PDS:[a-zA-Z]{1}([a-zA-Z0-9])*-[a-zA-Z]{1}([a-zA-Z0-9])***
 - minimum_characters: **16**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PUID** - administration_record: [Proto_DD_090609s](#)
-

node_name

title: **node_name** in common:Node

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node_name element provides the officially recognized name of a PDS Node.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9])***
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **none**
 - permissible value: **central** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **engineering** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **european_space_agency** - 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: **hq** - 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: **n/a** - 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: **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_plasma_interactions_-_ucla** - 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: **radiometry** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **small_bodies** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

node_name

title: **node_name** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node_name element provides the officially recognized name of a PDS Node.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9])***
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **none**
 - permissible value: **Planetary_Rings_Node** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

node_reference

title: **node_reference** in common:Collection_Cross_Reference

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

node_reference

title: **node_reference** in common:Context_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

node_reference

title: **node_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The node reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

non-quote-character

title: **non-quote-character** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **non-quote-character = letter | digit | special | underscore | apostrophe | space ;**

- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NON-QUOTE-CHARACTER** - administration_record: [Proto_DD_090609s](#)
-

not_applicable_constant

title: **not_applicable_constant** in common:Special_Constants
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The not applicable constant element provides a value that indicates the original value was not applicable.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_CONSTANT** - administration_record: [Proto_DD_090609s](#)
-

NSSDC_Collection_Id

title: **NSSDC_Collection_Id** in ops:Delivery_Manifest_Entry
 steward: **ops**
 name space id: **ops**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **An NSSDC Collection ID is an NSSDC assigned identifier for a collection of PDS datasets.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

number_of_axes

title: **number_of_axes** in common:Array_2D
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of axes element provides a count of the axes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - permissible value: **2** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_axes

title: **number_of_axes** in common:Array_3D
 steward: **common**

name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of axes element provides a count of the axes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - permissible value: **3** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_axes

title: **number_of_axes** in common:Array_Base
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of axes element provides a count of the axes.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_fields

title: **number_of_fields** in common:Stream_Delimited
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of fields element provides a count of the fields.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_fields

title: **number_of_fields** in common:Table_Base
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of fields element provides a count of the fields.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_records

title: **number_of_records** in common:File
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of records element provides a count of records.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_records

title: **number_of_records** in common:Stream_Delimited

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of records element provides a count of records.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

number_of_records

title: **number_of_records** in common:Table_Base

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The number of records element provides a count of records.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

objectives_summary

title: **objectives_summary** in common:Investigation

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The objectives_summary element describes the major scientific objectives of a data collection activity.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_SUMMARY** - administration_record: [Proto_DD_090609s](#)
-

observing_system_reference

title: **observing_system_reference** in common:Collection_Cross_Reference

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The observing system reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

observing_system_reference

title: **observing_system_reference** in common:Context_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The observing system reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

observing_system_reference

title: **observing_system_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The observing system reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

occultation_type

title: **occultation_type** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **10**
 - unit_of_measure_name: **n/a**
 - permissible value: **STELLAR** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

offset

title: **offset** in common:Data_Location

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The offset element provides a number indicating the displacement from a position.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

operations_contact_puid

title: **operations_contact_puid** in common:Node

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The operations_contact indicates the node person responsible for node operations.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id:version_id**
 - pattern: **URN:NASA:PDS:[a-zA-Z]{1}([a-zA-Z0-9])*-[a-zA-Z]{1}([a-zA-Z0-9])***
 - minimum_characters: **16**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PUID** - administration_record: Proto_DD_090609s
-

OS_version

title: **OS_version** in common:Software_Binary

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The OS version element indicates the version of an operating system.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_VERSION** - administration_record: Proto_DD_090609s
-

OS_version

title: **OS_version** in common:Software_Source
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The OS version element indicates the version of an operating system.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_VERSION** - administration_record: [Proto_DD_090609s](#)
-

packet_map_mask

title: **packet_map_mask** in img:Telemetry_Parameters
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_OCTET**
 - unit_of_measure_name: **n/a**
 - conceptual domain: **CD_OCTET** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_MASK** - administration_record: [Proto_DD_090609s](#)
-

pds_address_book_flag

title: **pds_address_book_flag** in common:PDS_Staff
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: *** The pds_address_book_flag data element indicates whether or not a registered PDS user will have an entry in the PDS telephone directory.***
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_BOOLEAN_YN**
 - pattern: `[YN]{1}`
 - minimum_characters: **1**
 - maximum_characters: **1**
 - unit_of_measure_name: **none**
 - permissible value: **YES** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **NO** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_YN** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FLAG** - administration_record: [Proto_DD_090609s](#)
-

pds_address_book_flag

title: **pds_address_book_flag** in common:Privileged_User
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: *** The pds_address_book_flag data element indicates whether or not a registered PDS user will have an entry in the PDS telephone directory.***
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_BOOLEAN_YN**

- pattern: **[YN]{1}**
 - minimum_characters: **1**
 - maximum_characters: **1**
 - unit_of_measure_name: **none**
 - permissible value: **NO** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **YES** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_YN** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FLAG** - administration_record: [Proto_DD_090609s](#)
-

pds_affiliation

title: **pds_affiliation** in common:Personnel
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: * The pds_affiliation data element describes the type of relationship an individual has with a PDS node. (e.g. staff*
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-_a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_AFFILIATION** - administration_record: [Proto_DD_090609s](#)
-

personnel_reference

title: **personnel_reference** in common:Context_Cross_Reference_Area
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The personnel reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}{[-_a-zA-Z0-9]*}:[a-zA-Z]{1}{[-_a-zA-Z0-9]*}**
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

personnel_reference

title: **personnel_reference** in common:Product_Cross_Reference_Area
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The personnel reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: ***URN:NASA:PDS:[a-zA-Z]{1}{[-_a-zA-Z0-9]*}:[a-zA-Z]{1}{[-_a-zA-Z0-9]*}**
 - minimum_characters: **18**
 - maximum_characters: **255**

- conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

planetary_occultation_flag

title: **planetary_occultation_flag** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_BOOLEAN_YN**
 - pattern: **[YN]{1}**
 - minimum_characters: **1**
 - maximum_characters: **1**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_YN** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_FLAG** - administration_record: [Proto_DD_090609s](#)
-

positive_azimuth_direction

title: **positive_azimuth_direction** in img:Az_el_coordinate_system

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - unit_of_measure_name: **n/a**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIRECTION** - administration_record: [Proto_DD_090609s](#)
-

positive_elevation_direction

title: **positive_elevation_direction** in img:Az_el_coordinate_system

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **10**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIRECTION** - administration_record: [Proto_DD_090609s](#)
-

positive_longitude_direction

title: **positive_longitude_direction** in common:Image_Map_Projection

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **4**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIRECTION** - administration_record: [Proto_DD_090609s](#)
-

positive_longitude_direction

title: **positive_longitude_direction** in img:Image_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **4**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIRECTION** - administration_record: [Proto_DD_090609s](#)
-

preference_id

title: **preference_id** in common:Personnel_Electronic_Mail

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The preference id provides a formal name used to refer to the preferred item.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - unit_of_measure_name: **none**
 - 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
- conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)

- data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

product_id

title: **product_id** in common:Identification_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The product id provides a formal name used to refer to a product. A product id is unique within the PDS and is used to create the product logical id. The formation rule for a product is dependent on the type of product. For example the product_id of a Product_Mission might include the mission_name.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **40**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

programmers_manual_identifier

title: **programmers_manual_identifier** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The programmers manual identifier element provides an identifier to a document giving instruction about the programming of the software.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

program_notes_identifier

title: **program_notes_identifier** in common:Software_Binary

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The program notes identifier element provides an identifier to a brief statement giving particulars about a software program.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_IDENTIFIER** - administration_record: [Proto_DD_090609s](#)
-

program_notes_identifier

title: **program_notes_identifier** in common:Software_Source

steward: **common**

name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The program notes identifier element provides an identifier to a brief statement giving particulars about a software program.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_IDENTIFIER** - administration_record: Proto_DD_090609s
-

property_name

title: **property_name** in common:Property_Map_Entry
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The property name element provides a word or a combination of words by which a property is known.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

property_value

title: **property_value** in common:Property_Map_Entry
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The property value element provides the value assigned to a property.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_VALUE** - administration_record: Proto_DD_090609s
-

publication_date

title: **publication_date** in common:Document_Set_Desc
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The publication_date element provides the date when a published item, such as a document or a compact disc, was issued.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_DATE**
 - format: **yyyy-mm-dd**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_DATE** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DATE** - administration_record: Proto_DD_090609s
-

publication_reference

title: **publication_reference** in common:Collection_Cross_Reference
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The publication reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

publication_reference

title: **publication_reference** in common:Context_Cross_Reference_Area
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The publication reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

publication_reference

title: **publication_reference** in common:Product_Cross_Reference_Area
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The publication reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*)::[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

quote

title: **quote** in common:Lexical_Definition
steward: **common**
name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **quote = "" ; (quotation mark)**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_QUOTE** - administration_record: Proto_DD_090609s
-

radial_resolution

title: **radial_resolution** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - 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 - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **km**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_RESOLUTION** - administration_record: Proto_DD_090609s
-

received_packets

title: **received_packets** in img:Telemetry_Parameters

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

record_bytes

title: **record_bytes** in common:Table_Base

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The record_bytes element provides a count of the bytes in a record.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

record_delimiter

title: **record_delimiter** in common:Stream_Delimited

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The record delimiter provides the character or characters used to indicate the end of the extent of a record.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **0xOA** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **0xOD** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **0xOD_0xOA** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DELIMITER** - administration_record: [Proto_DD_090609s](#)
-

reference

title: **reference** in common:Reference_Index_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: `*URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*)::[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

reference_coordinate_system_name

title: **reference_coordinate_system_name** in img:Az_el_coordinate_system

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

reference_desc

title: **reference_desc** in common:Reference

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference_desc element provides a complete bibliographic citation for a published work. The format for such citations is that employed by the Journal of Geophysical Research (JGR).**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

reference_key_id

title: **reference_key_id** in common:Data_Set_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference_key_id element provides the catalog with an identifier for a reference document.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

reference_key_id

title: **reference_key_id** in common:Reference

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference_key_id element provides the catalog with an identifier for a reference document.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

reference_key_id

title: **reference_key_id** in img:Data_Set_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference_key_id element provides the catalog with an identifier for a reference document.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-_**

- a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

reference_latitude

title: **reference_latitude** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LATITUDE** - administration_record: Proto_DD_090609s
-

reference_latitude

title: **reference_latitude** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LATITUDE** - administration_record: Proto_DD_090609s
-

reference_longitude

title: **reference_longitude** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-180.0**
 - maximum_value: **360.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LONGITUDE** - administration_record: Proto_DD_090609s
-

reference_longitude

title: **reference_longitude** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-180.0**
 - maximum_value: **360.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LONGITUDE** - administration_record: [Proto_DD_090609s](#)
-

reference_object_type

title: **reference_object_type** in common:Reference_Index_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference object type element indicates the type of the object being referenced.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

reference_relation_desc

title: **reference_relation_desc** in common:Reference_Index_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference relation desc element provides a short description of the relationship between two objects.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - conceptual domain: **CD_STRING** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DESCRIPTION** - administration_record: [Proto_DD_090609s](#)
-

reference_type

title: **reference_type** in common:Generic_Reference_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference type attribute provides a classification of the reference.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **associated_with** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

reference_type

title: **reference_type** in common:Index_Member_Entry
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference type attribute provides a classification of the reference.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **has_member** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

reference_type

title: **reference_type** in common:Index_Reference_Entry
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference type attribute provides a classification of the reference.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **has_update** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

reference_type

title: **reference_type** in common:Product_Reference_Entry
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference type attribute provides a classification of the reference.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - 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: **associated_data_product** - 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: **collected_by_obs_sys** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **associated_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: **collected_from_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: **cited_in_pub** - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

reference_type

title: **reference_type** in common:Reference_Entry

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The reference type attribute provides a classification of the reference.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_TYPE** - administration_record: [Proto_DD_090609s](#)
-

registration_date

title: **registration_date** in common:Personnel

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The registration_date element provides the date as of which an individual is registered as an authorized user of the PDS system.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE**
 - format: **yyyy-mm-dd**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_DATE** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE** - administration_record: [Proto_DD_090609s](#)
-

repertoire_list

title: **repertoire_list** in common:Value_Domain

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **UTF-8 (8-bit UCS/Unicode Transformation Format) is a variable-length character encoding for Unicode. It is able to represent any character in the Unicode standard, yet is backwards compatible with ASCII.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **UTF-8** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LIST** - administration_record: [Proto_DD_090609s](#)
-

repetitions

title: **repetitions** in common:Stream_Delimited_Grouped_Sequence

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The repetitions element indicates the number of time an object occurs.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**

- maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

repetitions

title: **repetitions** in common:Table_Binary_Grouped_Sequence

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The repetitions element indicates the number of time an object occurs.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

repetitions

title: **repetitions** in common:Table_Character_Grouped_Sequence

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The repetitions element indicates the number of time an object occurs.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **1**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

resource_class

title: **resource_class** in common:Resource

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The resource_class element classifies the resource**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - unit_of_measure_name: **none**
 - permissible value: **application.catalog** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.datasetbrowser** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.datasetbrowserc** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.datasetbrowserp** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.datasetbrowserx** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.interface** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.targetbrowser** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **application.website** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **data.volume** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **data.volumefuture** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **data.volumeoffline** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **data.volumeremote** - begin date: 2009-06-09 - end date: 2019-12-31

- permissible value: **data.volumesuperceded** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CLASS** - administration_record: Proto_DD_090609s
-

resource_link

title: **resource_link** in common:Resource

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The resource_link element provides a URL for linking to the described resource**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LINK** - administration_record: Proto_DD_090609s
-

resource_status

title: **resource_status** in common:Resource

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The resource_status element provides a status for the resource**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_STATUS** - administration_record: Proto_DD_090609s
-

rights

title: **rights** in common:Document_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **Information about rights held in and over the resource. - Dublin Core**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - permissible value: **PUBLIC_DOMAIN** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_RIGHTS** - administration_record: Proto_DD_090609s
-

ring_event_start_time

title: **ring_event_start_time** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

ring_event_stop_time

title: **ring_event_stop_time** in rings:Rings_Prod_Info
steward: **rings**
name space id: **rings:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

ring_occultation_direction

title: **ring_occultation_direction** in rings:Rings_Prod_Info
steward: **rings**
name space id: **rings:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The ring_occultation_direction element indicates the radial direction of a ring occultation track.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DIRECTION** - administration_record: [Proto_DD_090609s](#)
-

rotational_element_desc

title: **rotational_element_desc** in common:Data_Set_Map_Projection
steward: **common**
name space id: **common:**
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**

- unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

rotational_element_desc

title: **rotational_element_desc** in img:Data_Set_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER_STRING**
 - pattern: ******
 - minimum_characters: **1**
 - maximum_characters: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_STRING** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DESCRIPTION** - administration_record: Proto_DD_090609s
-

sample_first_pixel

title: **sample_first_pixel** in common:Image_Map_Projection

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PIXEL** - administration_record: Proto_DD_090609s
-

sample_first_pixel

title: **sample_first_pixel** in img:Image_Map_Projection

steward: **img**

name space id: **img:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PIXEL** - administration_record: Proto_DD_090609s
-

sample_last_pixel

title: **sample_last_pixel** in common:Image_Map_Projection

steward: **common**

name space id: **common:**

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PIXEL** - administration_record: Proto_DD_090609s
-

sample_last_pixel

title: **sample_last_pixel** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_INTEGER**
 - minimum_value: **0**
 - maximum_value: **2147483647**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_INTEGER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PIXEL** - administration_record: Proto_DD_090609s
-

sample_projection_offset

title: **sample_projection_offset** in common:Image_Map_Projection
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **pixel**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

sample_projection_offset

title: **sample_projection_offset** in img:Image_Map_Projection
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - unit_of_measure_name: **pixel**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

saturated_constant

title: **saturated_constant** in common:Special_Constants
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The saturated constant element provides a value that indicates the original value was saturated.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_CONSTANT** - administration_record: [Proto_DD_090609s](#)
-

scan_mode_id

title: **scan_mode_id** in [img:Camera_Parameters](#)

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This element identifies one of several internal rates for data acquisition by an instrument.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`
 - minimum_characters: **1**
 - maximum_characters: **8**
 - unit_of_measure_name: **none**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

second_standard_parallel

title: **second_standard_parallel** in [common:Image_Map_Projection](#)

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PARALLEL** - administration_record: [Proto_DD_090609s](#)
-

second_standard_parallel

title: **second_standard_parallel** in [img:Image_Map_Projection](#)

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-90.0**
 - maximum_value: **90.0**
 - unit_of_measure_name: **deg**

- conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_PARALLEL** - administration_record: [Proto_DD_090609s](#)
-

security_roles

title: **security_roles** in ops:Security_Group
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The security roles element indicates the function performed associated with security.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - permissible value: **Create** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **Delete** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **Retrieve** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **Update** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

shutter_mode_id

title: **shutter_mode_id** in img:Camera_Parameters
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - permissible value: **BODARK** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **BOTSIM** - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

SIPID

title: **SIPID** in ops:Delivery_Manifest_Entry
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **SIP Identifier - Producer Archive Project ID (PAPID) in conjunction with a unique integer. PAPID is assigned by the NSSDC.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-_a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_SIPID** - administration_record: [Proto_DD_090609s](#)
-

SIP_Data_Directory_Specification_Name

title: **SIP_Data_Directory_Specification_Name** in ops:Delivery_Manifest_Entry
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **Relative path name to the data directory and indicates the directory being transferred in the SIP. E.g. SIP_Data_Directory_Specification_Name = -Volume_ID-**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

SIP_Manifest_File_Specification_Name

title: **SIP_Manifest_File_Specification_Name** in ops:Delivery_Manifest_Entry
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **Relative path name of the SIP manifest file in the SIP_Manifest directory. Formation Rule: -volume_id- + "_SIP_Manifest"**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

SIP_Manifest_Path

title: **SIP_Manifest_Path** in ops:Delivery_Manifest
steward: **ops**
name space id: **ops**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The relative path from the data brick mount point to and including the SIP manifest directory. E.g. SIP_Manifest_Path = "/SIP_Manifest/" - indicates that the SIP_Manifest directory is at the mount point of the disk brick.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_PATH** - administration_record: Proto_DD_090609s
-

software_dialect

title: **software_dialect** in common:Software_Source
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **The software dialect element indicates the variety of a language used to write the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DIALECT** - administration_record: Proto_DD_090609s
-

software_id

title: **software_id** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The software id element provides a formal name used to refer to the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **16**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

software_language

title: **software_language** in common:Software_Source

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The software language element identifies the language used to write the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_LANGUAGE** - administration_record: Proto_DD_090609s
-

software_type

title: **software_type** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The software type element identifies the class of which the software is a member.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]*}**
 - minimum_characters: **1**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - permissible value: **n/a** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **unk** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

space

title: **space** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **space = " " (space) ; The character space is required to be bound to the "space" member of ISO/IEC 10646, but it only has meaning within character-literals and string-literals.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}{[-.a-zA-Z0-9]*}`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_SPACE** - administration_record: [Proto_DD_090609s](#)
-

spacecraft_clock_start_count

title: **spacecraft_clock_start_count** in common:Observation_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

spacecraft_clock_stop_count

title: **spacecraft_clock_stop_count** in common:Observation_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

special

title: **special** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **special = "(" | (left parenthesis) ")" | (right parenthesis) "." | (full stop) "," | (comma) ":" | (colon) ";" | (semicolon) "=" | (equals sign) "/" | (solidus) "*" | (* asterisk) "-" | (hyphen-minus) "Unknown macro: {" | (* left curly bracket *) " }" | (right curly bracket) "" " ; (right square bracket)**
- value domain - administration_record: [Proto_DD_090609s](#)

- data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_SPECIAL** - administration_record: Proto_DD_090609s
-

spice_file_name

title: **spice_file_name** in img:Telemetry_Parameters
 steward: **img**
 name space id: **img**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **180**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

spice_reference

title: **spice_reference** in common:Product_Cross_Reference_Area
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The spice reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*):[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

standard_deviation

title: **standard_deviation** in common:Object_Statistics
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The standard deviation element provides the predictable difference of values in an object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **0**
 - maximum_value: **INF**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DEVIATION** - administration_record: Proto_DD_090609s
-

start_date

title: **start_date** in common:Investigation

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The start_date element provides the date when an activity began.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE**
 - format: **yyyy-mm-dd**
 - unit_of_measure_name: **day**
 - conceptual domain: **CD_DATE** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE** - administration_record: [Proto_DD_090609s](#)
-

start_time

title: **start_time** in common:Observation_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The start_time element provides the date and time of the beginning of an event or observation (whether it be a spacecraft UTC system format.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_TIME** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_DATE_TIME** - administration_record: [Proto_DD_090609s](#)
-

star_name

title: **star_name** in rings:Rings_Prod_Info

steward: **rings**

name space id: **rings**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **40**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

stop_date

title: **stop_date** in common:Investigation

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The stop_date element provides the date when an activity ended.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_DATE**
 - format: **yyyy-mm-dd**
 - unit_of_measure_name: **day**

- conceptual domain: **CD_DATE** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DATE** - administration_record: Proto_DD_090609s
-

stop_time

title: **stop_time** in common:Observation_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The stop_time element provides the date and time of the end of an observation or event.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_DATE_TIME**
 - format: **yyyy-mm-ddThh:mm:ss**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_TIME** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_DATE_TIME** - administration_record: Proto_DD_090609s
-

string-literal

title: **string-literal** in common:Lexical_Definition

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **string-literal = quote, Unknown macro: { string-character }, quote ; string-character = non-quote-character | added-character | escape-character ;**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_STRING-LITERAL** - administration_record: Proto_DD_090609s
-

supported_architecture

title: **supported_architecture** in common:Software_Binary

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The supported architecture element identifies the hardware architecture that can process the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ARCHITECTURE** - administration_record: Proto_DD_090609s
-

supported_architecture

title: **supported_architecture** in common:Software_Source

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **The supported architecture element identifies the hardware architecture that can process the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ARCHITECTURE** - administration_record: Proto_DD_090609s
-

supported_environment

title: **supported_environment** in common:Software_Script

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The supported environment element identifies the environment that can process the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ENVIRONMENT** - administration_record: Proto_DD_090609s
-

supported_OS

title: **supported_OS** in common:Software_Binary

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The supported OS element identifies the Operating System that supports the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

supported_OS

title: **supported_OS** in common:Software_Source

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The supported OS element identifies the Operating System that supports the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

sw_format_type

title: **sw_format_type** in common:Software_Binary

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The sw format type element classifies the format of the software.**

- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

sw_format_type

title: **sw_format_type** in common:Software_Source
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The sw format type element classifies the format of the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

system_requirements

title: **system_requirements** in common:Software_Binary
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The system requirements element identifies what is necessary to process the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

system_requirements

title: **system_requirements** in common:Software_Format
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The system requirements element identifies what is necessary to process the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

system_requirements

title: **system_requirements** in common:Software_Script
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The system requirements element identifies what is necessary to process the software.**
- value domain - administration_record: Proto_DD_090609s

- data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

system_requirements

title: **system_requirements** in common:Software_Source

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The system requirements element identifies what is necessary to process the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

target_reference

title: **target_reference** in common:Collection_Cross_Reference

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The target reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

target_reference

title: **target_reference** in common:Context_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The target reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

target_reference

title: **target_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The target reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-_a-zA-Z0-9]*):[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_REFERENCE** - administration_record: [Proto_DD_090609s](#)
-

telemetry_provider_id

title: **telemetry_provider_id** in img:Telemetry_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **100**
 - unit_of_measure_name: **n/a**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_ID** - administration_record: [Proto_DD_090609s](#)
-

telemetry_source_name

title: **telemetry_source_name** in img:Telemetry_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **60**
 - unit_of_measure_name: **n/a**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

telemetry_source_type

title: **telemetry_source_type** in img:Telemetry_Parameters

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_ENUMERATED**

- pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - unit_of_measure_name: **n/a**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

telephone_number

title: **telephone_number** in common:Priviledged_User

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The telephone_number element provides the area code telephone number and extension (if any) of an individual or node. See also: fts_number.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - maximum_characters: **30**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NUMBER** - administration_record: Proto_DD_090609s
-

thumbnail_reference

title: **thumbnail_reference** in common:Product_Cross_Reference_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The thumbnail reference element provides either the logical_identifier or the logical_identifier plus the version_id for a registry object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - format: **URN:NASA:PDS:product_id::version_id**
 - pattern: *URN:NASA:PDS:[a-zA-Z]{1}([-a-zA-Z0-9]*):[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **18**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_REFERENCE** - administration_record: Proto_DD_090609s
-

title

title: **title** in common:Document_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - 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 - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-a-zA-Z0-9]*)*
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_NAME** - administration_record: Proto_DD_090609s
-

title

title: **title** in common:Identification_Area
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - 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 - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: `*[a-zA-Z]{1}([-a-zA-Z0-9]*)*`
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_NAME** - administration_record: [Proto_DD_090609s](#)
-

total_characters

title: **total_characters** in common:Array_Element_Character
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The total characters element indicate the maximum count of charcters allowed.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

total_digits

title: **total_digits** in common:Array_Element_Integer
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The total digits element indicate the maximum count of digits allowed.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

total_digits

title: **total_digits** in common:Array_Element_Real
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **The total digits element indicate the maximum count of digits allowed.**
- value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
- conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)

- data element concept: **DEC_COUNT** - administration_record: Proto_DD_090609s
-

Transfer_Object_Id

title: **Transfer_Object_Id** in ops:Delivery_Manifest_Entry

steward: **ops**

name space id: **ops**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Transfer_Object_Id is an NSSDC provided identifier for the digital information object within a SIP that is to be preserved in an AIP.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-a-zA-Z0-9]}***
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

type

title: **type** in common:Detector

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Type element indicates a category for the class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-a-zA-Z0-9]}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

type

title: **type** in common:Instrument

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Type element indicates a category for the class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: ***[a-zA-Z]{1}{[-a-zA-Z0-9]}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

type

title: **type** in common:Instrument_Host

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s

- description: **The Type element indicates a category for the class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

type

title: **type** in common:Observing_System

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Type element indicates a category for the class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

type

title: **type** in common:Target

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Type element indicates a category for the class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

type

title: **type** in common:Telescope

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The Type element indicates a category for the class.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - pattern: *[a-zA-Z]{1}{[-.a-zA-Z0-9]*}
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_TYPE** - administration_record: Proto_DD_090609s
-

underscore

title: **underscore** in common:Lexical_Definition
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **underscore = "_" ; (low line)**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_UNDERSCORE** - administration_record: Proto_DD_090609s
-

unknown_constant

title: **unknown_constant** in common:Special_Constants
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The unknown constant element provides a value that indicates the original value was unknown.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **20**
 - unit_of_measure_name: **none**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_CONSTANT** - administration_record: Proto_DD_090609s
-

users_manual_identifier

title: **users_manual_identifier** in common:Software_Set_Desc
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The users manual identifier element provides a formal name used to refer to a manual that describes how to use the software.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **100**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_IDENTIFIER** - administration_record: Proto_DD_090609s
-

Value

title: **Value** in common:Value_Domain
steward: **common**
name space id: **common**:
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The value element provides a numerical or character quantity that is assigned.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
- conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s

- data element concept: **DEC_VALUE** - administration_record: Proto_DD_090609s
-

Value

title: **Value** in common:VD_Boolean_TF

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The value element provides a numerical or character quantity that is assigned.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - 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
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_VALUE** - administration_record: Proto_DD_090609s
-

Value

title: **Value** in common:VD_Boolean_YN

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The value element provides a numerical or character quantity that is assigned.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_ENUMERATED**
 - permissible value: **YES** - begin date: 2009-06-09 - end date: 2019-12-31
 - permissible value: **NO** - begin date: 2009-06-09 - end date: 2019-12-31
 - conceptual domain: **CD_ENUMERATED** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_VALUE** - administration_record: Proto_DD_090609s
-

value_syntax

title: **value_syntax** in common:Conceptual_Domain

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]}***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_SYNTAX** - administration_record: Proto_DD_090609s
-

version_id

title: **version_id** in common:Identification_Area

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The version id element identifies the specific form or variation of an object.**
- value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}{[-.a-zA-Z0-9]}***

- minimum_characters: 1
 - maximum_characters: 100
 - unit_of_measure_name: none
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

version_id

title: **version_id** in common:Software_Set_Desc

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **The version id element identifies the specific form or variation of an object.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_CHARACTER**
 - pattern: *[a-zA-Z]{1}([-_a-zA-Z0-9]*)*
 - minimum_characters: 1
 - maximum_characters: 100
 - unit_of_measure_name: none
 - conceptual domain: **CD_CHARACTER** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_ID** - administration_record: Proto_DD_090609s
-

vertical_framelet_offset

title: **vertical_framelet_offset** in common:Image_Map_Projection

steward: **common**

name space id: **common**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: 1
 - maximum_value: INF
 - unit_of_measure_name: none
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

vertical_framelet_offset

title: **vertical_framelet_offset** in img:Image_Map_Projection

steward: **img**

name space id: **img**:

version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: 1
 - maximum_value: INF
 - unit_of_measure_name: none
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_OFFSET** - administration_record: Proto_DD_090609s
-

Volumes

title: **Volumes** in ops:Delivery_Manifest

steward: **ops**

name space id: **ops**:

version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **An integer value indicating the number of archive volumes in this delivery.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_INTEGER**
 - minimum_value: **-2147483648**
 - maximum_value: **2147483647**
 - conceptual domain: **CD_INTEGER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_COUNT** - administration_record: [Proto_DD_090609s](#)
-

western_most_longitude

title: **western_most_longitude** in common:Image_Map_Projection
 steward: **common**
 name space id: **common**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LONGITUDE** - administration_record: [Proto_DD_090609s](#)
-

western_most_longitude

title: **western_most_longitude** in img:Image_Map_Projection
 steward: **img**
 name space id: **img**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **This attribute is used in the image map projection. Under review.**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_CHARACTER**
 - pattern: ***[a-zA-Z]{1}([-a-zA-Z0-9]*)***
 - minimum_characters: **1**
 - maximum_characters: **255**
 - conceptual domain: **CD_CHARACTER** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_LONGITUDE** - administration_record: [Proto_DD_090609s](#)
-

x

title: **x** in img:Quaternion
 steward: **img**
 name space id: **img**:
 version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_X** - administration_record: [Proto_DD_090609s](#)
-

x

title: **x** in img:Vector

steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_X** - administration_record: [Proto_DD_090609s](#)
-

y

title: **y** in [img:Quaternion](#)
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_Y** - administration_record: [Proto_DD_090609s](#)
-

y

title: **y** in [img:Vector](#)
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_Y** - administration_record: [Proto_DD_090609s](#)
-

z

title: **z** in [img:Quaternion](#)
steward: **img**
name space id: **img**:
version: **090609s**

- data element - administration_record: [Proto_DD_090609s](#)
 - description: **TBD description**
 - value domain - administration_record: [Proto_DD_090609s](#)
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: [Proto_DD_090609s](#)
 - data element concept: **DEC_Z** - administration_record: [Proto_DD_090609s](#)
-

z

title: **z** in [img:Vector](#)
steward: **img**

name space id: **img:**
version: **090609s**

- data element - administration_record: Proto_DD_090609s
 - description: **TBD description**
 - value domain - administration_record: Proto_DD_090609s
 - data_type: **ASCII_REAL**
 - minimum_value: **-INF**
 - maximum_value: **INF**
 - conceptual domain: **CD_REAL** - administration_record: Proto_DD_090609s
 - data element concept: **DEC_Z** - administration_record: Proto_DD_090609s
-

CD_BOOLEAN

designation: CD_BOOLEAN
version_identifier: 090609s
definition: The values true and false, such that true is not equal to false. - ISO/IEC 11404
administration_record: Proto_DD_090609s

CD_CHARACTER

designation: CD_CHARACTER
version_identifier: 090609s
definition: The value space of a character datatype comprises exactly the members of the character-sets identified by the repertoire-list. - ISO/IEC 11404
administration_record: Proto_DD_090609s

CD_COMPLEX

designation: CD_COMPLEX
version_identifier: 090609s
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
administration_record: Proto_DD_090609s

CD_ENUMERATED

designation: CD_ENUMERATED
version_identifier: 090609s
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
administration_record: Proto_DD_090609s

CD_INTEGER

designation: CD_INTEGER
version_identifier: 090609s
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 $y = x$. That is: ..., -2, -1, 0, 1, 2, ... (a denumerably infinite list). - ISO/IEC 11404
administration_record: Proto_DD_090609s

CD_OCTET

designation: CD_OCTET
version_identifier: 090609s
definition: Each value of datatype octet is a code, represented by a non-negative integer value in the range 0, 255. - ISO/IEC 11404

administration_record: Proto_DD_090609s

CD_REAL

designation: CD_REAL

version_identifier: 090609s

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

administration_record: Proto_DD_090609s

CD_SCALED

designation: CD_SCALED

version_identifier: 090609s

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

administration_record: Proto_DD_090609s

CD_TIME

designation: CD_TIME

version_identifier: 090609s

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

administration_record: Proto_DD_090609s

CD_TIME_INTERVAL

designation: CD_TIME_INTERVAL

version_identifier: 090609s

definition: All values which are integral multiples of one radix ^ (-factor) unit of the specified timeunit. - ISO/IEC 11404

administration_record: Proto_DD_090609s

CD_VOID

designation: CD_VOID

version_identifier: 090609s

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

administration_record: Proto_DD_090609s

DEC_COUNT

designation: DEC_COUNT

version_identifier: 090609s

definition: A numeric value indicating a current total or tally.

administration_record: Proto_DD_090609s

DEC_DATE

designation: DEC_DATE

version_identifier: 090609s

definition: A representation of time in which the smallest unit of measure is a day.

administration_record: Proto_DD_090609s

DEC_DATE_TIME

designation: DEC_DATE_TIME

version_identifier: 090609s

definition: A value that measures the point of occurrence of an event expressed in date and time in a standard form.

administration_record: Proto_DD_090609s

DEC_DESCRIPTION

designation: DEC_DESCRIPTION

version_identifier: 090609s

definition: A free-form, unlimited-length character string that provides a description of the item identified.

administration_record: Proto_DD_090609s

DEC_DIRECTION

designation: DEC_DIRECTION

version_identifier: 090609s

definition: TBD

administration_record: Proto_DD_090609s

DEC_FLAG

designation: DEC_FLAG

version_identifier: 090609s

definition: A boolean condition indicator, limited to two states.

administration_record: Proto_DD_090609s

DEC_FORMAT

designation: DEC_FORMAT

version_identifier: 090609s

definition: A specified or predetermined arrangement of data within a file or on a storage medium.

administration_record: Proto_DD_090609s

DEC_GROUP

designation: DEC_GROUP

version_identifier: 090609s

definition: Names a collection or aggregation of elements. Example: ALT FLAG GROUP

administration_record: Proto_DD_090609s

DEC_GUID

designation: DEC_GUID

version_identifier: 090609s

definition: A globally unique, immutable, and opaque product identifier.

administration_record: Proto_DD_090609s

DEC_ID

designation: DEC_ID

version_identifier: 090609s

definition: A shorthand alphanumeric identifier.

administration_record: Proto_DD_090609s

DEC_IDENTIFIER

designation: DEC_IDENTIFIER
version_identifier: 090609s
definition: A shorthand alphanumeric identifier.
administration_record: Proto_DD_090609s

DEC_LOCAL_IDENTIFIER

designation: DEC_LOCAL_IDENTIFIER
version_identifier: 090609s
definition: An identifier unique within a product label. When appended to the PUID, it provides a global identifier for a component of a product.
administration_record: Proto_DD_090609s

DEC_LOGICAL_IDENTIFIER

designation: DEC_LOGICAL_IDENTIFIER
version_identifier: 090609s
definition: A unique product identifier without the version. It identifies the set of all versions of a product.
administration_record: Proto_DD_090609s

DEC_MASK

designation: DEC_MASK
version_identifier: 090609s
definition: An unsigned numeric value representing the bit positions within a value.
administration_record: Proto_DD_090609s

DEC_NAME

designation: DEC_NAME
version_identifier: 090609s
definition: A literal value representing the common term used to identify an element.
administration_record: Proto_DD_090609s

DEC_NOTE

designation: DEC_NOTE
version_identifier: 090609s
definition: A textual expression of opinion, an observation, or a criticism; a remark.
administration_record: Proto_DD_090609s

DEC_NUMBER

designation: DEC_NUMBER
version_identifier: 090609s
definition: A quantity.
administration_record: Proto_DD_090609s

DEC_QUATERNION

designation: DEC_QUATERNION
version_identifier: 090609s
definition: TBD
administration_record: Proto_DD_090609s

DEC_RANGE

designation: DEC_RANGE
version_identifier: 090609s
definition: Numeric values which identify the starting and stopping points of an interval.
administration_record: Proto_DD_090609s

DEC_RATIO

designation: DEC_RATIO
version_identifier: 090609s
definition: The relation between two quantities with respect to the number of times the first contains the second.
administration_record: Proto_DD_090609s

DEC_SEQUENCE

designation: DEC_SEQUENCE
version_identifier: 090609s
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.
administration_record: Proto_DD_090609s

DEC_SET

designation: DEC_SET
version_identifier: 090609s
definition: A collection of items having some feature in common or which bear a certain relation to one another, e.g. all even numbers.
administration_record: Proto_DD_090609s

DEC_SUMMARY

designation: DEC_SUMMARY
version_identifier: 090609s
definition: An abridged description.
administration_record: Proto_DD_090609s

DEC_TEXT

designation: DEC_TEXT
version_identifier: 090609s
definition: A free-form, unlimited length character string.
administration_record: Proto_DD_090609s

DEC_TYPE

designation: DEC_TYPE
version_identifier: 090609s
definition: A literal that indicates membership in a predefined class.
administration_record: Proto_DD_090609s

DEC_UNIT

designation: DEC_UNIT
version_identifier: 090609s
definition: A determinate quantity adopted as a standard of measurement.
administration_record: Proto_DD_090609s

DEC_VALUE

designation: DEC_VALUE
version_identifier: 090609s
definition: The default class word for data element names not terminated with a class word.
administration_record: Proto_DD_090609s

DEC_VECTOR

designation: DEC_VECTOR
version_identifier: 090609s
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: Proto_DD_090609s

Administration Record: Proto_DD_090609s

administration_record: [Proto_DD_090609s](#)
version_identifier: [090609s](#)
steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

Administration Record: Proto_DD_090609s

administration_record: [Proto_DD_090609s](#)
version_identifier: [090609s](#)
steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

Administration Record: Proto_DD_090609s

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version_identifier: [090609s](#)
steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

Administration Record: Proto_DD_090609s

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steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)

registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

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steward: [Steward_PDS](#)
submitter: [Submitter_PDS](#)
registered_by: [RA_0001_NASA_PDS_1](#)
registration_authority_identifier: [0001_NASA_PDS_1](#)

AdministrationRecord

identifier: [Proto_DD_090609s](#)
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: [Proto_DD_090609s](#)
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](#)

{anchor:System_Classification_Id}

ClassificationScheme

identifier: [System_Classification_Id](#)

classification_scheme_type_name: Keyword
dataIdentifier: System_Classification_Id"
version_identifier: 090609s
label: System_Classification_Id
registered_by: RA_0001_NASA_PDS_1
steward: Steward_PDS
submitter: Submitter_PDS
terminological_entry: TE_System_Classification_Id
administration_ecord: Proto_DD_090609s
registration_authority_identifier: 0001_NASA_PDS_1
containing: csitv2_common
containing: csitv2_isis
containing: csitv2_jpl-ammos
containing: csitv2_mars-observer
containing: csitv2_pds-atmos
containing: csitv2_pds-cn
containing: csitv2_pds-geo-mgn
containing: csitv2_pds-img-gll
containing: csitv2_pds-mer-ops
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compile_notes - **compile_notes** in common:Software_Source
content_type - **content_type** in common:File_PDF
coordinate_system_name - **coordinate_system_name** in common:Image_Map_Projection, **coordinate_system_name** in img:Coordinate_System, **coordinate_system_name** in img:Image_Map_Projection
coordinate_system_type - **coordinate_system_type** in common:Image_Map_Projection, **coordinate_system_type** in img:Image_Map_Projection
cosine - **cosine** in img:Quaternion
creation_time - **creation_time** in common:File, **creation_time** in common:Identification_Area
c_axis_radius - **c_axis_radius** in common:Image_Map_Projection, **c_axis_radius** in img:Image_Map_Projection

Data_Path - **Data_Path** in ops:Delivery_Manifest
data_reference - **data_reference** in common:Product_Cross_Reference_Area
data_set_id - **data_set_id** in common:Data_Set_Map_Projection, **data_set_id** in common:Image_Map_Projection, **data_set_id** in img:Data_Set_Map_Projection, **data_set_id** in img:Image_Map_Projection
data_type_is_enumerated - **data_type_is_enumerated** in common:ASCII_CHARACTER_STRING, **data_type_is_enumerated** in common:ASCII_ENUMERATED, **data_type_is_enumerated** in common:Boolean, **data_type_is_enumerated** in common:Character, **data_type_is_enumerated** in common:Character_Complex, **data_type_is_enumerated** in common:Character_Date, **data_type_is_enumerated** in common:Character_Date_Time, **data_type_is_enumerated** in common:Character_Enumerated_Constrained, **data_type_is_enumerated** in common:Character_Integer, **data_type_is_enumerated** in common:Character_Octet, **data_type_is_enumerated** in common:Character_Real, **data_type_is_enumerated** in common:Character_Real_Double, **data_type_is_enumerated** in common:Character_Scaled, **data_type_is_enumerated** in common:Character_String_Constrained, **data_type_is_enumerated** in common:Character_Time, **data_type_is_enumerated** in common:Character_Time_Interval, **data_type_is_enumerated** in common:Complex, **data_type_is_enumerated** in common:Data_Type, **data_type_is_enumerated** in common:Decimal_Integer, **data_type_is_enumerated** in common:Decimal_Real, **data_type_is_enumerated** in common:Void
data_type_length - **data_type_length** in common:BIT, **data_type_length** in common:COMPLEX_8_BYTE, **data_type_length** in common:Data_Type, **data_type_length** in common:IEEE754Double, **data_type_length** in common:IEEE754Single, **data_type_length** in common:LSB_INTEGER_8_BYTE, **data_type_length** in common:MSB_INTEGER_8_BYTE, **data_type_length** in common:SignedLSB2, **data_type_length** in common:SignedLSB4, **data_type_length** in common:SignedMSB2, **data_type_length** in common:SignedMSB4, **data_type_length** in common:UnsignedByte
data_type_pattern - **data_type_pattern** in common:Character_Time, **data_type_pattern** in common:Data_Type
data_type_unit - **data_type_unit** in common:ASCII_BOOLEAN_YN, **data_type_unit** in common:ASCII_CHARACTER_STRING, **data_type_unit** in common:ASCII_COMPLEX, **data_type_unit** in common:ASCII_DATE, **data_type_unit** in common:ASCII_DATE_TIME, **data_type_unit** in common:ASCII_ENUMERATED, **data_type_unit** in common:ASCII_INTEGER, **data_type_unit** in common:ASCII_OCTET, **data_type_unit** in common:ASCII_REAL, **data_type_unit** in common:ASCII_REAL_DOUBLE, **data_type_unit** in common:ASCII_SCALED, **data_type_unit** in common:ASCII_TIME, **data_type_unit** in common:ASCII_TIME_INTERVAL, **data_type_unit** in common:Boolean, **data_type_unit** in common:Character, **data_type_unit** in common:Complex, **data_type_unit** in common:Data_Type, **data_type_unit** in common:Decimal_Integer, **data_type_unit** in common:Decimal_Real
date_time - **date_time** in common:Update_Entry
da_contact_puid - **da_contact_puid** in common:Node
Delivery_Description - **Delivery_Description** in ops:Delivery_Manifest
Delivery_Identifier - **Delivery_Identifier** in ops:Delivery_Manifest
description - **description** in common:Document_Set_Desc, **description** in common:Header, **description** in common:Instrument, **description** in common:Instrument_Host, **description** in common:Investigation, **description** in common:Node, **description** in common:Observing_System, **description** in common:Resource, **description** in common:Software_Set_Desc, **description** in common:Update_Entry
digit-string - **digit-string** in common:Lexical_Definition
digit - **digit** in common:Lexical_Definition
directory_delimiter - **directory_delimiter** in common:Lexical_Definition
directory_name_token - **directory_name_token** in common:Lexical_Definition
directory_path_name - **directory_path_name** in common:File
discipline_desc - **discipline_desc** in common:Discipline_Description
discipline_name - **discipline_name** in common:Discipline_Description
doi - **doi** in common:Citation, **doi** in common:Document_Set_Desc

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 common:Image_Map_Projection, **eastern_most_longitude** in img:Image_Map_Projection
edit_mode_id - **edit_mode_id** in img:Camera_Parameters
electronic_mail_address - **electronic_mail_address** in common:Privileged_User
electronic_mail_id - **electronic_mail_id** in common:Personnel_Electronic_Mail
electronic_mail_type - **electronic_mail_type** in common:Personnel_Electronic_Mail
element_bytes - **element_bytes** in common:Array_Element
element_scaling_factor - **element_scaling_factor** in common:Array_Element
element_type - **element_type** in common:Array_Element, **element_type** in common:Array_Element_Character, **element_type** in common:Array_Element_Integer, **element_type** in common:Array_Element_Real
element_unit - **element_unit** in common:Array_Element

element_value_offset - **element_value_offset** in common:Array_Element
encoding_type - **encoding_type** in common:Document_Part
error_constant - **error_constant** in common:Special_Constants
escape - **escape** in common:Lexical_Definition
expected_packets - **expected_packets** in img:Telemetry_Parameters
exposure_duration - **exposure_duration** in img:Camera_Parameters
external_standard_id - **external_standard_id** in common:Encoded_Stream_Base

fax_number - **fax_number** in common:Priviledged_User
field_bits - **field_bits** in common:Table_Binary_Grouped_Bit_Field
field_bit_mask - **field_bit_mask** in common:Table_Binary_Grouped_Bit_Field
field_bytes - **field_bytes** in common:Stream_Delimited_Field
field_data_type - **field_data_type** in common:Stream_Delimited_Field, **field_data_type** in common:Table_Field
field_delimiter - **field_delimiter** in common:Stream_Delimited
field_description - **field_description** in common:Stream_Delimited_Field, **field_description** in common:Table_Field
field_format - **field_format** in common:Stream_Delimited_Field, **field_format** in common:Table_Field
field_length - **field_length** in common:Table_Field
field_location - **field_location** in common:Table_Field
field_max_logical - **field_max_logical** in common:Stream_Delimited_Field, **field_max_logical** in common:Table_Field
field_max_physical - **field_max_physical** in common:Stream_Delimited_Field, **field_max_physical** in common:Table_Field
field_min_logical - **field_min_logical** in common:Stream_Delimited_Field, **field_min_logical** in common:Table_Field
field_min_physical - **field_min_physical** in common:Stream_Delimited_Field, **field_min_physical** in common:Table_Field
field_name - **field_name** in common:Stream_Delimited_Field, **field_name** in common:Table_Field
field_number - **field_number** in common:Stream_Delimited_Field, **field_number** in common:Table_Field
field_scaling_factor - **field_scaling_factor** in common:Stream_Delimited_Field, **field_scaling_factor** in common:Table_Field
field_start_bit - **field_start_bit** in common:Table_Binary_Grouped_Bit_Field
field_unit - **field_unit** in common:Stream_Delimited_Field, **field_unit** in common:Table_Field
field_value_offset - **field_value_offset** in common:Stream_Delimited_Field, **field_value_offset** in common:Table_Field
files - **files** in common:Software_Binary, **files** in common:Software_Format, **files** in common:Software_Script, **files** in common:Software_Source
file_extension_token - **file_extension_token** in common:Lexical_Definition
file_local_identifier - **file_local_identifier** in common:Data_Location
file_name - **file_name** in common:File, **file_name** in common:File_Location
file_name_delimiter - **file_name_delimiter** in common:Lexical_Definition
file_name_token - **file_name_token** in common:Lexical_Definition
file_size - **file_size** in common:File
file_type - **file_type** in common:Array_Base, **file_type** in common:Encoded_Stream_Base, **file_type** in common:Table_Base_Binary, **file_type** in common:Table_Base_Character, **file_type** in common:TDO_Structures, **file_type** in common:Unencoded_Stream_Base
filter_id - **filter_id** in img:Camera_Parameters
filter_name - **filter_name** in img:Camera_Parameters
first_element - **first_element** in common:Array_Base
first_standard_parallel - **first_standard_parallel** in common:Image_Map_Projection, **first_standard_parallel** in img:Image_Map_Projection
format_type - **format_type** in common:Document_Format
fraction_digits - **fraction_digits** in common:Array_Element_Real
full_name - **full_name** in common:Personnel

gain_mode_id - **gain_mode_id** in img:Camera_Parameters
geometry_reference - **geometry_reference** in common:Product_Cross_Reference_Area

horizontal_framelet_offset - **horizontal_framelet_offset** in common:Image_Map_Projection, **horizontal_framelet_offset** in img:Image_Map_Projection

image_id - **image_id** in common:Image_Map_Projection, **image_id** in img:Image_Map_Projection
incidence_angle - **incidence_angle** in rings:Rings_Prod_Info
install_notes - **install_notes** in common:Software_Script
instrument_host_reference - **instrument_host_reference** in common:Collection_Cross_Reference, **instrument_host_reference** in common:Context_Cross_Reference_Area, **instrument_host_reference** in common:Product_Cross_Reference_Area
instrument_reference - **instrument_reference** in common:Collection_Cross_Reference, **instrument_reference** in common:Context_Cross_Reference_Area, **instrument_reference** in common:Product_Cross_Reference_Area
invalid_constant - **invalid_constant** in common:Special_Constants
investigation_reference - **investigation_reference** in common:Collection_Cross_Reference, **investigation_reference** in common:Context_Cross_Reference_Area, **investigation_reference** in common:Product_Cross_Reference_Area
ISO/IEC_646 - **ISO/IEC_646** in common:Lexical_Definition

kernel_type - **kernel_type** in common:SPICE_Kernel
key_electronic_mail_address - **key_electronic_mail_address** in common:Personnel, **key_electronic_mail_address** in common:Priviledged_User

last_name - **last_name** in common:Personnel
letter - **letter** in common:Lexical_Definition
lexical_identifier - **lexical_identifier** in common:Lexical_Definition
lidvid_reference - **lidvid_reference** in common:Reference_Entry
lid_reference - **lid_reference** in common:Reference_Entry
line_first_pixel - **line_first_pixel** in common:Image_Map_Projection, **line_first_pixel** in img:Image_Map_Projection
line_last_pixel - **line_last_pixel** in common:Image_Map_Projection, **line_last_pixel** in img:Image_Map_Projection
line_projection_offset - **line_projection_offset** in common:Image_Map_Projection, **line_projection_offset** in img:Image_Map_Projection
local_identifier - **local_identifier** in common:Any_Described_Data_Object, **local_identifier** in common:File, **local_identifier** in common:TDO_Structures, **local_identifier** in common:TNDO_Supplemental, **local_identifier** in img:Imaging
logical_identifier - **logical_identifier** in common:Identification_Area

map_projection_desc - **map_projection_desc** in common:Data_Set_Map_Projection, **map_projection_desc** in img:Data_Set_Map_Projection
map_projection_name - **map_projection_name** in img:Data_Set_Map_Projection, **map_projection_name** in img:Image_Map_Projection
map_projection_rotation - **map_projection_rotation** in common:Image_Map_Projection, **map_projection_rotation** in img:Image_Map_Projection
map_projection_type - **map_projection_type** in common:Data_Set_Map_Projection, **map_projection_type** in common:Image_Map_Projection
map_resolution - **map_resolution** in common:Image_Map_Projection, **map_resolution** in img:Image_Map_Projection
map_scale - **map_scale** in common:Image_Map_Projection, **map_scale** in img:Image_Map_Projection
maximum - **maximum** in common:Object_Statistics
maximum_latitude - **maximum_latitude** in common:Image_Map_Projection, **maximum_latitude** in img:Image_Map_Projection
maximum_record_length - **maximum_record_length** in common:Stream_Delimited
maximum_ring_radius - **maximum_ring_radius** in rings:Rings_Prod_Info
max_exclusive - **max_exclusive** in common:Array_Element_Integer, **max_exclusive** in common:Array_Element_Real
max_inclusive - **max_inclusive** in common:Array_Element_Integer, **max_inclusive** in common:Array_Element_Real
max_record_bytes - **max_record_bytes** in common:File
mean - **mean** in common:Object_Statistics
median - **median** in common:Object_Statistics
minimum - **minimum** in common:Object_Statistics
minimum_latitude - **minimum_latitude** in common:Image_Map_Projection, **minimum_latitude** in img:Image_Map_Projection
minimum_ring_radius - **minimum_ring_radius** in rings:Rings_Prod_Info
min_exclusive - **min_exclusive** in common:Array_Element_Integer, **min_exclusive** in common:Array_Element_Real
min_inclusive - **min_inclusive** in common:Array_Element_Integer, **min_inclusive** in common:Array_Element_Real
min_index - **min_index** in common:Array_Base
missing_constant - **missing_constant** in common:Special_Constants

name - **name** in common:Header, **name** in common:Software_Set_Desc, **name** in common:Table_Base
namespace_id - **namespace_id** in common:Property_Map
node_id - **node_id** in common:PDS_Staff, **node_id** in ops:Delivery_Manifest, **node_id** in rings:Rings_Prod_Info
node_institution_name - **node_institution_name** in common:Node, **node_institution_name** in common:PDS_Staff
node_manager_puid - **node_manager_puid** in common:Node
node_name - **node_name** in common:Node, **node_name** in rings:Rings_Prod_Info
node_reference - **node_reference** in common:Collection_Cross_Reference, **node_reference** in common:Context_Cross_Reference_Area, **node_reference** in common:Product_Cross_Reference_Area
non-quote-character - **non-quote-character** in common:Lexical_Definition
not_applicable_constant - **not_applicable_constant** in common:Special_Constants
NSSDC_Collection_Id - **NSSDC_Collection_Id** in ops:Delivery_Manifest_Entry
number_of_axes - **number_of_axes** in common:Array_2D, **number_of_axes** in common:Array_3D, **number_of_axes** in common:Array_Base
number_of_fields - **number_of_fields** in common:Stream_Delimited, **number_of_fields** in common:Table_Base
number_of_records - **number_of_records** in common:File, **number_of_records** in common:Stream_Delimited, **number_of_records** in common:Table_Base

objectives_summary - **objectives_summary** in common:Investigation
observing_system_reference - **observing_system_reference** in common:Collection_Cross_Reference, **observing_system_reference** in common:Context_Cross_Reference_Area, **observing_system_reference** in common:Product_Cross_Reference_Area
occultation_type - **occultation_type** in rings:Rings_Prod_Info
offset - **offset** in common:Data_Location
operations_contact_puid - **operations_contact_puid** in common:Node
OS_version - **OS_version** in common:Software_Binary, **OS_version** in common:Software_Source

packet_map_mask - **packet_map_mask** in img:Telemetry_Parameters
pds_address_book_flag - **pds_address_book_flag** in common:PDS_Staff, **pds_address_book_flag** in common:Privileged_User
pds_affiliation - **pds_affiliation** in common:Personnel
personnel_reference - **personnel_reference** in common:Context_Cross_Reference_Area, **personnel_reference** in common:Product_Cross_Reference_Area
planetary_occultation_flag - **planetary_occultation_flag** in rings:Rings_Prod_Info
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 common:Image_Map_Projection, **positive_longitude_direction** in

img:Image_Map_Projection
reference_id - **reference_id** in common:Personnel_Electronic_Mail
product_id - **product_id** in common:Identification_Area
programmers_manual_identifier - **programmers_manual_identifier** in common:Software_Set_Desc
program_notes_identifier - **program_notes_identifier** in common:Software_Binary, **program_notes_identifier** in common:Software_Source
property_name - **property_name** in common:Property_Map_Entry
property_value - **property_value** in common:Property_Map_Entry
publication_date - **publication_date** in common:Document_Set_Desc
publication_reference - **publication_reference** in common:Collection_Cross_Reference, **publication_reference** in common:Context_Cross_Reference_Area, **publication_reference** in common:Product_Cross_Reference_Area

quote - **quote** in common:Lexical_Definition

radial_resolution - **radial_resolution** in rings:Rings_Prod_Info
received_packets - **received_packets** in img:Telemetry_Parameters
record_bytes - **record_bytes** in common:Table_Base
record_delimiter - **record_delimiter** in common:Stream_Delimited
reference - **reference** in common:Reference_Index_Entry
reference_coordinate_system_name - **reference_coordinate_system_name** in img:Az_el_coordinate_system
reference_desc - **reference_desc** in common:Reference
reference_key_id - **reference_key_id** in common:Data_Set_Map_Projection, **reference_key_id** in common:Reference, **reference_key_id** in img:Data_Set_Map_Projection
reference_latitude - **reference_latitude** in common:Image_Map_Projection, **reference_latitude** in img:Image_Map_Projection
reference_longitude - **reference_longitude** in common:Image_Map_Projection, **reference_longitude** in img:Image_Map_Projection
reference_object_type - **reference_object_type** in common:Reference_Index_Entry
reference_relation_desc - **reference_relation_desc** in common:Reference_Index_Entry
reference_type - **reference_type** in common:Generic_Reference_Entry, **reference_type** in common:Index_Member_Entry, **reference_type** in common:Index_Reference_Entry, **reference_type** in common:Product_Reference_Entry, **reference_type** in common:Reference_Entry
registration_date - **registration_date** in common:Personnel
repertoire_list - **repertoire_list** in common:Value_Domain
repetitions - **repetitions** in common:Stream_Delimited_Grouped_Sequence, **repetitions** in common:Table_Binary_Grouped_Sequence, **repetitions** in common:Table_Character_Grouped_Sequence
resource_class - **resource_class** in common:Resource
resource_link - **resource_link** in common:Resource
resource_status - **resource_status** in common:Resource
rights - **rights** in common:Document_Set_Desc
ring_event_start_time - **ring_event_start_time** in rings:Rings_Prod_Info
ring_event_stop_time - **ring_event_stop_time** in rings:Rings_Prod_Info
ring_occultation_direction - **ring_occultation_direction** in rings:Rings_Prod_Info
rotational_element_desc - **rotational_element_desc** in common:Data_Set_Map_Projection, **rotational_element_desc** in img:Data_Set_Map_Projection

sample_first_pixel - **sample_first_pixel** in common:Image_Map_Projection, **sample_first_pixel** in img:Image_Map_Projection
sample_last_pixel - **sample_last_pixel** in common:Image_Map_Projection, **sample_last_pixel** in img:Image_Map_Projection
sample_projection_offset - **sample_projection_offset** in common:Image_Map_Projection, **sample_projection_offset** in img:Image_Map_Projection
saturated_constant - **saturated_constant** in common:Special_Constants
scan_mode_id - **scan_mode_id** in img:Camera_Parameters
second_standard_parallel - **second_standard_parallel** in common:Image_Map_Projection, **second_standard_parallel** in img:Image_Map_Projection
security_roles - **security_roles** in ops:Security_Group
shutter_mode_id - **shutter_mode_id** in img:Camera_Parameters
SIPID - **SIPID** in ops:Delivery_Manifest_Entry
SIP_Data_Directory_Specification_Name - **SIP_Data_Directory_Specification_Name** in ops:Delivery_Manifest_Entry
SIP_Manifest_File_Specification_Name - **SIP_Manifest_File_Specification_Name** in ops:Delivery_Manifest_Entry
SIP_Manifest_Path - **SIP_Manifest_Path** in ops:Delivery_Manifest
software_dialect - **software_dialect** in common:Software_Source
software_id - **software_id** in common:Software_Set_Desc
software_language - **software_language** in common:Software_Source
software_type - **software_type** in common:Software_Set_Desc
space - **space** in common:Lexical_Definition
spacecraft_clock_start_count - **spacecraft_clock_start_count** in common:Observation_Area
spacecraft_clock_stop_count - **spacecraft_clock_stop_count** in common:Observation_Area
special - **special** in common:Lexical_Definition
spice_file_name - **spice_file_name** in img:Telemetry_Parameters
spice_reference - **spice_reference** in common:Product_Cross_Reference_Area
standard_deviation - **standard_deviation** in common:Object_Statistics
start_date - **start_date** in common:Investigation
start_time - **start_time** in common:Observation_Area
star_name - **star_name** in rings:Rings_Prod_Info

stop_date - **stop_date** in common:Investigation
stop_time - **stop_time** in common:Observation_Area
string-literal - **string-literal** in common:Lexical_Definition
supported_architecture - **supported_architecture** in common:Software_Binary, **supported_architecture** in common:Software_Source
supported_environment - **supported_environment** in common:Software_Script
supported_OS - **supported_OS** in common:Software_Binary, **supported_OS** in common:Software_Source
sw_format_type - **sw_format_type** in common:Software_Binary, **sw_format_type** in common:Software_Source
system_requirements - **system_requirements** in common:Software_Binary, **system_requirements** in common:Software_Format,
system_requirements in common:Software_Script, **system_requirements** in common:Software_Source

target_reference - **target_reference** in common:Collection_Cross_Reference, **target_reference** in common:Context_Cross_Reference_Area,
target_reference in common:Product_Cross_Reference_Area
telemetry_provider_id - **telemetry_provider_id** in img:Telemetry_Parameters
telemetry_source_name - **telemetry_source_name** in img:Telemetry_Parameters
telemetry_source_type - **telemetry_source_type** in img:Telemetry_Parameters
telephone_number - **telephone_number** in common:Priviledged_User
thumbnail_reference - **thumbnail_reference** in common:Product_Cross_Reference_Area
title - **title** in common:Document_Set_Desc, **title** in common:Identification_Area
total_characters - **total_characters** in common:Array_Element_Character
total_digits - **total_digits** in common:Array_Element_Integer, **total_digits** in common:Array_Element_Real
Transfer_Object_Id - **Transfer_Object_Id** in ops:Delivery_Manifest_Entry
type - **type** in common:Detector, **type** in common:Instrument, **type** in common:Instrument_Host, **type** in common:Observing_System, **type** in common:Target, **type** in common:Telescope

underscore - **underscore** in common:Lexical_Definition
unknown_constant - **unknown_constant** in common:Special_Constants
users_manual_identifier - **users_manual_identifier** in common:Software_Set_Desc

Value - **Value** in common:Value_Domain, **Value** in common:VD_Boolean_TF, **Value** in common:VD_Boolean_YN
value_syntax - **value_syntax** in common:Conceptual_Domain
version_id - **version_id** in common:Identification_Area, **version_id** in common:Software_Set_Desc
vertical_framelet_offset - **vertical_framelet_offset** in common:Image_Map_Projection, **vertical_framelet_offset** in img:Image_Map_Projection
Volumes - **Volumes** in ops:Delivery_Manifest

western_most_longitude - **western_most_longitude** in common:Image_Map_Projection, **western_most_longitude** in
img:Image_Map_Projection

x - **x** in img:Quaternion, **x** in img:Vector

y - **y** in img:Quaternion, **y** in img:Vector

z - **z** in img:Quaternion, **z** in img:Vector----

PDS4 Data Types Fri Mar 12 14:36:32 PST 2010

Generated from the PDS4 Ontology Model Version 0.090609s

data Type:ASCII_BOOLEAN_YN

description: **ASCII_BOOLEAN** indicates a boolean in ASCII format.

data_type_unit: **BYTE**

data_type_is_enumerated: **TRUE**

data_type_length: **null**

value_domain: **VD_Boolean_YN**

conceptual_domain: **CD_Enumerated**

data_type_concept: **DTC_Enumerated**

data Type:ASCII_CHARACTER

description: **ASCII_CHARACTER** indicates a string in ASCII format. **ASCII_CHARACTER** allows only a limited character set.

data_type_is_enumerated: **FALSE**

data_type_unit: **BYTE**
data_type_length: **null**
conceptual_domain: [CD_Character](#)
data_type_concept: [DTC_Character](#)
value_domain: [VD_Character_Constrained](#)

data Type:ASCII_COMPLEX

description: **ASCII_COMPLEX** indicates a complex number in ASCII format.
data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Complex](#)
data_type_concept: [DTC_Complex](#)
value_domain: [VD_Complex](#)

data Type:ASCII_DATE

description: **ASCII_DATE** indicates a date in ASCII format.
data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Time](#)
data_type_concept: [DTC_Time](#)
value_domain: [VD_Date](#)

data Type:ASCII_DATE_TIME

description: **ASCII_DATE_TIME** indicates a date time in ASCII format.
data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Time](#)
data_type_concept: [DTC_Time](#)
value_domain: [VD_Date_Time](#)

data Type:ASCII_INTEGER

description: **ASCII_INTEGER** indicates a integer in ASCII format.
data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:ASCII_OCTET

description: **ASCII_OCTET** indicates an octet in ASCII format.
data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Octet](#)
data_type_concept: [DTC_Octet](#)
value_domain: [VD_Enumerated](#)

data Type:ASCII_REAL

description: **ASCII_REAL** indicates a single precision real number in ASCII format.

data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Real](#)
data_type_concept: [DTC_Real](#)
value_domain: [VD_Real](#)

data Type:ASCII_REAL_DOUBLE

description: **ASCII_REAL_DOUBLE** indicates a double precision real number in ASCII format.

data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Real](#)
data_type_concept: [DTC_Real](#)
value_domain: [VD_Real](#)

data Type:ASCII_SCALED

description: **ASCII_SCALED** indicates a scaled number in ASCII format.

data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Scaled](#)
data_type_concept: [DTC_Scaled](#)
value_domain: [Value_Domain](#)

data Type:ASCII_TIME

description: **ASCII_TIME** indicates a time in ASCII format.

data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Time](#)
data_type_concept: [DTC_Time](#)
value_domain: [VD_Time](#)

data Type:ASCII_TIME_INTERVAL

description: **ASCII_TIME_INTERVAL** indicates a time interval in ASCII format.

data_type_unit: **BYTE**
data_type_is_enumerated: **FALSE**
data_type_length: **null**
conceptual_domain: [CD_Time_Interval](#)
data_type_concept: [DTC_Time_Interval](#)
value_domain: [Value_Domain](#)

data Type:BIT

description: **Binary Data Type**

data_type_length: **1**
data_type_is_enumerated: **TRUE**
data_type_unit: **BIT**
conceptual_domain: [CD_Boolean](#)
data_type_concept: [DTC_Boolean](#)
value_domain: [VD_Boolean_TF](#)
value_domain: [VD_Boolean_YN](#)

data Type:COMPLEX_8_BYTE

description: **Binary Data Type**
data_type_length: **8**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
value_domain: [VD_Complex](#)
conceptual_domain: [CD_Complex](#)
data_type_concept: [DTC_Complex](#)

data Type:IEEE754Double

description: **IEEE 754 double precision floating point**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **8**
conceptual_domain: [CD_Real](#)
data_type_concept: [DTC_Real](#)
value_domain: [VD_Real](#)

data Type:IEEE754Single

description: **IEEE 754 single precision floating point**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **4**
conceptual_domain: [CD_Real](#)
data_type_concept: [DTC_Real](#)
value_domain: [VD_Real](#)

data Type:LSB_INTEGER_8_BYTE

description: **Signed 2's-complement LSB 4-byte integers**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **8**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:MSB_INTEGER_8_BYTE

description: **Signed 2's-complement MSB 8-byte integers**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **8**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:NIL

description: **Binary Data Type**
data_type_length: **null**
data_type_unit: **null**
data_type_is_enumerated: **TRUE**
value_domain: [Value_Domain](#)
conceptual_domain: [CD_Void](#)
data_type_concept: [DTC_Void](#)

data Type:SignedLSB2

description: **Signed 2's-complement LSB 2-byte integers**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **2**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:SignedLSB4

description: **Signed 2's-complement LSB 4-byte integers**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **4**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:SignedMSB2

description: **Signed 2's-complement MSB 2-byte integers**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **2**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:SignedMSB4

description: **Signed 2's-complement MSB 4-byte integers**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **4**
conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)
value_domain: [VD_Integer](#)

data Type:UTF-8

description: **Null-delimited UTF-8 character strings**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **null**
conceptual_domain: [CD_Character](#)
data_type_concept: [DTC_Character](#)
value_domain: [VD_Character](#)

data Type:UnsignedByte

description: **Unsigned 8-bit MSb bytes**
data_type_is_enumerated: **FALSE**
data_type_unit: **BYTE**
data_type_length: **1**
value_domain: [Value_Domain](#)

conceptual_domain: [CD_Integer](#)
data_type_concept: [DTC_Integer](#)

data_type_concept: DTC_Enumerated

description: **Enumerated** is a family of datatypes, each of which comprises a finite number of distinguished values having an intrinsic order. - ISO/IEC 11404

data_type_concept: DTC_Character

description: **Character** is a family of datatypes whose value spaces are character-sets. - ISO/IEC 11404

data_type_concept: DTC_Complex

description: **Complex** is a family of datatypes, each of which is a computational approximation to the mathematical datatype comprising the "complex numbers". Specifically, each complex datatype designates a collection of mathematical complex values which are known to certain applications to some finite precision and must be distinguishable to at least that precision in those applications. - ISO/IEC 11404

data_type_concept: DTC_Time

description: **Time** is a family of datatypes whose values are points in time to various common resolutions: year, month, day, hour, minute, second, and fractions thereof. - ISO/IEC 11404

data_type_concept: DTC_Integer

description: **Integer** is the mathematical datatype comprising the exact integral values. - ISO/IEC 11404

data_type_concept: DTC_Octet

description: **Octet** is the datatype of 8-bit codes, as used for character-sets and private encodings. - ISO/IEC 11404

data_type_concept: DTC_Real

description: **Real** is a family of datatypes which are computational approximations to the mathematical datatype comprising the "real numbers". Specifically, each real datatype designates a collection of mathematical real values which are expressed to some finite precision and must be distinguishable to at least that precision. - ISO/IEC 11404

data_type_concept: DTC_Scaled

description: **Scaled** is a family of datatypes whose value spaces are subsets of the rational value space, each individual datatype having a fixed denominator, but the scaled datatypes possess the concept of approximate value. - ISO/IEC 11404

data_type_concept: DTC_Time_Interval

description: **Timeinterval** is a family of datatypes representing elapsed time in seconds or fractions of a second (as opposed to **Date-and-time**, which represents a point in time). It is a generated datatype derived from a scaled datatype by limiting the operations. - ISO/IEC 11404

data_type_concept: DTC_Boolean

description: **Boolean** is the mathematical datatype associated with two-valued logic. - ISO/IEC 11404

data_type_concept: DTC_Void

description: **Void** is the datatype representing an object whose presence is syntactically or semantically required, but carries no

information in a given instance. - ISO/IEC 11404

conceptual domain: CD_Enumerated

description: 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

conceptual domain: CD_Character

description: The value space of a character datatype comprises exactly the members of the character-sets identified by the repertoire-list. - ISO/IEC 11404

conceptual domain: CD_Complex

description: 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

conceptual domain: CD_Time

description: 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

conceptual domain: CD_Integer

description: 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

conceptual domain: CD_Octet

description: Each value of datatype octet is a code, represented by a non-negative integer value in the range 0, 255. - ISO/IEC 11404

conceptual domain: CD_Real

description: 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

conceptual domain: CD_Scaled

description: 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

conceptual domain: CD_Time_Interval

description: All values which are integral multiples of one radix ^ (-factor) unit of the specified timeunit. - ISO/IEC 11404

conceptual domain: CD_Boolean

description: The values true and false, such that true is not equal to false. - ISO/IEC 11404

conceptual domain: CD_Void

description: 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

value domain: VD_Boolean_YN

description: **Syntax: boolean-literal = "YES" | "NO"**

value domain: VD_Character_Constrained

description: **Syntax:ISO/IEC 11404 character_literal constrained to uppercase letters, digits and under_score. Space not allowed.**

value domain: VD_Complex

description: **Syntax: complex-literal = "(" , real-part , "," , imaginary-part , ")" ; real-part = real-literal ; imaginary-part = real-literal ; A complex-literal denotes a value of a complex datatype. The real-part and the imaginary-part are interpreted as real values, and the complex value denoted is: $M(\text{realpart} + (\text{imaginarypart} \hat{A}i))$, where + is the additive operation on the mathematical complex numbers and is the multiplicative operation on the mathematical complex numbers, and i is the "principal square root" of -1 (one of the two solutions to $x^2 + 1 = 0$). - ISO/IEC 11404**

value domain: VD_Date

description: **ISO 8601 - yyyy-mm-dd**

value domain: VD_Date_Time

description: **ISO 8601 - yyyy-mm-ddThh:mm:ss.sss**

value domain: VD_Integer

description: **Syntax: integer-literal = signed-number ; signed-number = ["-" , number ; number = digit-string ; An integer literal denotes an integer value. If the negative sign ("-") is not present, the value denoted is that of the digit-string interpreted as a decimal number. If the negative-sign is present, the value denoted is the negative of that value. - ISO/IEC 11404**

value domain: VD_Enumerated

description: **enumerated-literal = identifier ; An enumerated-literal denotes that value of the enumerated datatype which has the same identifier. - ISO/IEC 11404**

value domain: VD_Real

description: **Syntax: real-literal = integer-literal , ["." , scale-factor] ; scale-factor = number , "^" , signed-number ; A real-literal denotes a value of a real datatype. The integer-literal is interpreted as a decimal integer value, and the scale-factor, if present, is interpreted as number raised to the power signednumber, where number and signed-number are expressed as decimal integers. If the scale-factor is not present, the value is that denoted by integer-literal. If the scale-factor is present, the value denoted is the rational value Multiply(integer-literal, scale-factor). - ISO/IEC 11404***

value domain: Value_Domain

description: **A value domain is the "set of permissible (valid) values (for a data type) or a description."**

value domain: VD_Time

description: **ISO 8601 - hh:mm:ss.sss**

value domain: VD_Boolean_TF

description: **Syntax: boolean-literal = "true" | "false" ; - ISO/IEC 11404**

value domain: VD_Character

description: **Syntax:** character-literal = "" , any-character, "" ; any-character = bound-character | added-character | escape-character ; bound-character = non-quote-character | quote ; non-quote-character = letter | digit | special | underscore | apostrophe | space ; added-character = ? not defined by this International Standard ? ; escape-character = escape, character-name, escape ; character-name = identifier, <curly bracket> " " , identifier <curly bracket> ; Every character-literal denotes a single member of the character-set identified by repertoire-list. A bound-character denotes that member which is associated with the symbol for the bound-character per 7.1. An added-character denotes that member which is associated with the symbol for the addedcharacter by the implementation, as provided in 7.1. An escape-character denotes that member whose "character name" in the (reference) character-set identified by repertoire-list is the same as character-name. - ISO/IEC 11404