

Release Notes

PD4 Information Model Version 0.7.0.0.j

Interim release between Build 2b and Build 2c

April 5, 2012

These notes detail the changes made to the PDS4 Information Model between the releases of Version 0.6.0.0.h for Build 2b and this interim release of Version 0.7.0.0.j. The purpose of this release is to provide a stable set of XML Schema and Schematron files and data standards documents for PDS and IPDA testing before Build 2c.

Major Changes made since the Build 2b release of Version 0.6.0.0.h

1. Modified Array_Base as per the Array_Base team recommendations. Significant changes include renaming array_base to array, array_element to element_array, and array_axis to axis_array. Also the enumerated value for the attribute axis_index_order, FIRST_INDEX_FASTEST, was changed to LAST_INDEX_FASTEST. The attribute axis_storage_order was dropped and a new class, Display_2D_Image, was added for display information.
2. Several groups of products were collapsed. The resulting superclasses are Product_Context, Product_Spice_Kernel, Product_Collection, and Product_Bundle. Examples of the products collapsed are respectively Product_Instrument, Product_Spice_Kernel_Binary, Product_Collection_Data, and Product_Archive_Bundle.
3. A large number of value meanings were added to the information model.
4. The schematron file was significantly updated by generating assert statements for all enumerated lists. Also a significant number of customized assert statements for the label preamble were added.
5. Added the root element "label" to the XML schema file to group the product classes.

Minor Changes made since the Build 2b release of Version 0.6.0.0.h

1. Changed Table_Base to be an abstract class.
2. Changed cardinality of record_delimited.maximum_records_bytes to 0..1
3. Replaced PDS_Affiliate.node_name with PDS_Affiliate.team_name.
4. Added the enumerated value management to Node.name.

5. Replaced the enumerated value CSV with PDS_CSV in table_delimited.external_standard_id and expunged OTHER.
6. Added uniformly_sampled as an associated class to the class table_delimited.
7. Changed data type for time_coordinates.*_date_time, archive_bundle.*_date_time, data_set_pds3.*_date_time to ASCII_Date_Time.
8. Removed the attribute enumeration_flag from the data_type classes.
9. Removed the data type ASCII_Boolean_TF.
10. Changed the data type of enumeration_flag to ASCII_Boolean.
11. Removed min/max_character overrides from *_date_time.
12. Cleaned up the attr.XMLSchemaName calculations.
13. Changed name of root element from "product_type" to "label".
14. Added the xs: prefix as the schema namespace.
15. Added an assert statement to limit descriptions in citation_information to less than 5000 characters.
16. Changed the data types of lidvid_* and lid_references to ASCII_LIDVID and ASCII_LID respectively.
17. Made Archive_Bundle.stop_date_time, Time_Coordinates.stop_date_time, and Data_Set_PDS3.stop_date_time nillable.
18. Fixed a bug in the class array_2d so that has_axis_array cardinalities are 2:2.
19. Replaced the data type bit with UnsignedBitString and SignedBitString.
20. Changed has_xml_schema_collection to has_schema_collection.
21. Added the abstract classes Data_Object, Conceptual_Object, Physical_Object, and Digital_Object back into IM Specification for online access to their definitions.
22. Added version information to the schematron files.
23. Modified xml schema file names; NV -> <blank>; <blank> -> V (validating).
24. Added the class Collection to Product_Collection and included the attribute collection_type with an enumerated list.
25. Changed the cardinality of file_specification_name to 0..1 in bundle_member_entry.
26. Added the attribute record_delimiter to the class table_character.
27. Added Product_Subscription_PDS3 to IM.
28. Simplified Product_SPICE_Kernel including collapsing spice_kernel_binary and spice_kernel_text into spice_kernel and removing sclk attributes.
29. Removed product_pds_affiliate, product_pds_guest, product_node.
30. Added supplementary as a enumerated value for bundle_type.