

Release Notes

PD4 Information Model Version 0.3.0.0.a

Release for Build 3a Testing

September 14, 2012

These notes detail the changes made to the PDS4 Information Model and contained in Release 0300a. The purpose of this release is to provide a stable set of XML Schema and Schematron files and data dictionary and information model documents for System Build 3a. This release reflects the changes made to address the problems found in the beta releases since 0.8.0.0.k and reported either via RFA or email.

Major Changes made since the release of Version 0.8.0.0.k

1. Changed the name `node_area` to `discipline_area`.
2. Made `collection.inventory` a type of `Table_Delimited`; First column is now `member_status` and the second column is either a `LIDVID` or `LID`.
3. Made `checksum_manifest` a subclass of `stream_text` and set `external_standard_id` to `MD5Deep`.
4. Made the reference types `data_collection_to_*` more generic by changing the name to `collection_to_*`.

Minor Changes made since the release of Version 0.8.0.0.k

1. Set cardinality of `discipline_area` and `mission_area` to 0..1 for `observation_area` and `context_area`.
2. Added schematron test for `offset=0` for `XML_Schema` and `Inventory`.
3. Removed "data_type" prefix from data type entries in DD.
4. Updated version to 0900Beta.
5. Fixed `Product_XML_Schema` to allow 1..* `File_Areas_XML_Schema`
6. Set cardinality of `Display_2D_Image` to 1..1 - RFA_184.
7. Created PDS4 product `XML_Schema` for the PDS xml schema and schematron file - RFA_178 - Generated label for schema and schematron files.
8. Changed the value `JPG` to `JPEG` for `Document_File.external_standard_id` - RFA_135
9. Added `array_3d` and `array_2d` to `file_area_observational` and `file_area_browse` - MRose

10. Changed document_desc to document.
11. Replaced field_length with maximum_field_length in field_delimited - RFA_140
12. Changed software_desc to software.
13. Added Agency as a context product type.
14. Added byte_stream, record, field, group, and file_area as parent classes for the respective subclasses. - MR
15. Added the OAIS Reference Model definitions of AIP, DIP, and SIP.
16. Updated values and value meanings for instrument.type from PPI spreadsheet.
17. Update values and value meanings for reference types from PPI spreadsheet and email request for changes - PPI
18. Changed cardinality of Primary_Result_Description.data_regime to 1..* - ER
19. Changed schematron test for product_class to be in sync with SDWG plan for product_types (harvest will create product type from the class name in product_context) - SH
20. Changed name of collection_volume_* to Product_Volume_* (PDS3 products) - SH
21. Added object_length to parsable_byte_stream and encoded_byte_stream - RFA_253
22. Added Character as value for Array, needed for SBN ASCII pixels - AR -
23. Added File_Area_Observational_Supplemental for Product_Observational - ER
24. Removed the attribute bytes from Header and Header_Encoded since they are redundant with object_length.
25. Removed maximum_record_byte from File; maximum_record_length exists in Table_Delimited.Record_Delimited.
26. Added data type ASCII LID/LIDVID for the Inventory
27. Ensured <CR><LF> is the sole record_delimiter for records of delimited and character tables.
28. Changed cardinality of mission_area and node_area to 0..1 in observation_area and context area.
29. Removed parsable byte stream from file_area_observational.

Changes made since the release of Version 0.9.0.0.B

1. Changed the data_type for the Member_Status field in the schematron validation file to ASCII_String
2. Added "PDS_CSV" as external_standard_id to Header.
3. Changed Table_Delimited.field_delimiter permissible value verticle_bar to vertical_bar
4. Changed Record_Character and Field_Character to Record_Delimited and Field_Delimited in schematron statements for Collection.Inventory
5. Added DD_Attribute_Full.type with values PDS3 and PDS4 to differentiate between PDS3 and PDS3 dictionary attributes in Product_Attribute_Definition
6. Removed file_specification_name from bundle_member_entry - DDWG F2F Decision
7. Removed bundle_member_entry_secondary since it is no longer used.
8. Added schematron statement to test that pds:Inventory/pds:Record_Character/pds:Field_Character[1].Field_Length is set to one

9. Fixed schematron statements for pds:Inventory/pds:Record_Character/pds:Field_Character[2] and data type ASCII_LIDVID_LID.
10. Added Product_Class_Definition to capture class definitions for ingestion into registry.
11. Added node_to_manager, node_to_operator, and node_to_data_archivist as reference types.
12. Changed has_Field_Bit to has_Field_Bit
13. Added "byte" as default_unit_id
14. Made Volume_PDS3.publication_date and Document.publication_date nilable
15. Fixed pattern for ASCII_Date_Time_UTC - RFA_138
16. Set permissible value for Bundle_Member_Entry.Member_Status to Primary and Secondary; fixed value meanings - DDWG 120823
17. Changed the name of the class primary_result_description to primary_result_summary; changed the entry in the MDPTNCConfigClass File; changed the data types for attributes that were orphaned; added reviewed permissible values for primary_result_summary.data_regime and .type.
18. Added reference types data_to_calibration_document, data_to_calibration_product, data_to_raw_product, data_to_calibrated_product - DDWG 120823.

Changes made since the release of Version 0.9.1.0.B

1. Removed attribute quaternion_components since a quaternion always has 4 Quaternion_Component classes
2. Added data_type to Quaternion_Component
3. Removed unit from quaternion component; a quaternion always has unit magnitude and unit is meaningless
4. Added data_type to Vector_Component
5. Changed XML schema data type from xs:integer to xs:int for ASCII_Integer and xs:long for ASCII_Unsigned_Integer - RFA_274
6. Changed file_size for file and document_file and volume_size for Volume_PDS3 to ASCII_Unsigned_Integer
7. Removed geometry and cartography classes from context_area and observation_area
8. Added xs:any to geometry and cartography classes
9. Added SIP reference_type values for base products, collections, collection fragments, bundles
10. Added instrument_type value meanings as provided by Ed G.
11. Fixed order of primary_Result_Summary
12. Updated primary_Result_Summary with latest values and value meanings from Dick
13. Removed the primary_Result_Summary.data_regime values, optical and quasi-static
14. Moved vector_component.data_type to vector
15. Added resource.type values and value meanings
16. Updated generated pds4_*.xml and pds4_*.sch files, fixed creation_date_time, modification_date, and added unit=byte for file_size
17. Added ?xml-model to generated pds4_*.xml and pds4_*.sch

18. Cleaned up data_types for field_* as per ER email date:8/5 subject:string types for use in character data
19. Removed delivery_manifest since it had been replaced by transfer manifest
20. Moved UnsignedBitString and SignedBitString to under Decimal_Integer as subclasses.
21. Made ASCII_Date.pattern the union of the patterns for ASCII_Date_DOY and ASCII_Date_YMD
22. Added the values node_to_manager, node_to_operator, node_to_data_archivist to Product_Context reference_types
23. Changed reduction_level to processing_level_id as approved by the MC.
24. Made Ingest_DD.pds4_merge_flag and Ingest_DD.pds4_merge_flag.local_identifier optional.
25. Fixed issues with the XML_Schema label; updated <information_mode_version>; updated <logical_identifier> to follow the formation rules; set <modification_date> to processing date; updated <encoding_type> value; update <external_standard_id> values (included versions)
26. Added the attribute DOI to external_reference - RFA_263
27. Updated the definition for scaling_factor by adding "The default value is 1." - RFA_222
28. Updated the definition for value offset by adding "The default value is 0." - RFA_222
29. Removed external_standard_version_id from the model; version information is to be included in external_standard_id - DDWG 120913
30. Fixed bug causing maximum_field_bytes units=bytes not appearing in schema
31. Removed <root> tag from master schema
32. Moved the class identification_area into product since it is common to all products.
33. Fixed nomenclature for the following attributes: Compile_notes -> compile_note, Install_notes -> install_note, Keywords -> keyword, Program_notes_identifier -> program_notes_id, Programmers_manual_identifier -> programmers_manual_id, Quaternion_components - removed, Reduction_level -> processing_level_id, Supported_architecture -> supported_architecture_note, Supported_environment -> supported_environment_note, Supported_os - supported_operating_system_note, Sw_format_type -> software_format_type, System_requirements -> system_requirements_note, Users_manual_identifier -> users_manual_id
34. Added the context classes telescope and facility
35. Added the classes Vector_Position_Base and Vector_Velocity_Base
36. Set data_type of document.doi and external_reference.doi to ASCII_DOI
37. Updated instrument.type value meanings several times from updates submitted by Dick S.