

This version of testing covers PDS4_PDS_1101, the Nov 21, 2013 release.

This document shows tests for the PDS4 schema and schematron, particularly as they change in response to Software Change Requests (SCRs). The schema and schematron are the actionable manifestations of the PDS4 information model.

The numbering of the Test Case IDs matches the numbering of the SCRs given at <https://pds-jira.jpl.nasa.gov/issues> or the numbering within Steve Hughes's release notes. The tester should diff the .sch and the .xsd files against the previous version to ensure the release notes fully describe the changes.

A summary of the test metrics

# of tests performed	# of tests passed	# of tests failed	# of high priority anomalies
24	24	0	0

A summary of the tests

CCB#	status	Comments
CCB-5	pass	
CCB-6	pass	
CCB-7	pass	
CCB-8	pass	
CCB-11	pass	
CCB-12	obsolete	Obsoleted by CCB-36
CCB-13	pass	
CCB-14	pass	
CCB-15	pass	
CCB-16	pass	Merged into CCB-42
CCB-17	pass	
CCB-18	pass	
CCB-19	pass	
CCB-22	pass	
CCB-24	pass	
CCB-26	pass	
CCB-27	pass	
CCB-28	pass	a documentation change
CCB-31	obsolete	obsoleted by CCB-42
CCB-36	pass	
CCB-42	pass	
1.1.0.1 rel note 2	pass	
1.1.0.1 rel note 4	pass	a documentation change
1.1.0.1 rel note 5	pass	a documentation change
1.1.0.1 rel note 6	pass	
1.1.0.1 rel note 7	pass	

Test Case ID	SCMA.CCB005
Description	For Context product Instrument, add 'Robotic Arm' as an enumerated value
Test Steps	<ol style="list-style-type: none"> diff --context=1 ccb005a.xml ccb005b.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb005a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb005b.xml
Test Results	<p>Step 1. The correct value is "Robotic Arm", no longer "robotic_arm"</p> <pre> *** ccb005a.xml 2013-11-16 02:19:05.000000000 -0800 --- ccb005b.xml 2013-11-16 02:07:01.000000000 -0800 ***** *** 43,45 **** <name>Not Really on Cassini</name> ! <type>Robotic Arm</type> <naif_instrument_id>not applicable</naif_instrument_id> --- 43,45 ---- <name>Not Really on Cassini</name> ! <type>robotic_arm</type> <naif_instrument_id>not applicable</naif_instrument_id> </pre> <p>Step 2: the good value</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T10:21:36Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb005a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb005a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre> <p>Step 3: the bad value</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T10:22:20Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb005b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb005b.xml ERROR The attribute pds:type must be equal to one of the following values 'Accelerometer', 'Alpha Particle Detector', 'Alpha Particle Xray Spectrometer', 'Altimeter', 'Anemometer', 'Atomic Force Microscope', 'Barometer', 'Biology Experiments', 'Bolometer', 'Camera', 'Cosmic Ray Detector', 'Dust Detector', 'Electrical Probe', 'Energetic Particle Detector', 'Gamma Ray Detector', 'Gas Analyzer', 'Grinding And Drilling Tool', 'Hygrometer', 'Imager', 'Imaging Spectrometer', 'Inertial Measurement Unit', 'Infrared Spectrometer', 'Laser Induced Breakdown Spectrometer', 'Magnetometer', 'Mass Spectrometer', 'Microwave Spectrometer', 'Moessbauer Spectrometer', 'Naked Eye', 'Neutral Particle Detector', 'Neutron Detector', 'Photometer', 'Plasma Analyzer', 'Plasma Detector', 'Plasma Wave Spectrometer', 'Polarimeter', 'RADAR', 'Radio Science', 'Radio Spectrometer', 'Radio Telescope', 'Radiometer', 'Reflectometer', 'Robotic Arm', 'Spectrograph Imager', 'Spectrometer', 'Thermal And Electrical Conductivity Probe', 'Thermal Imager', 'Thermal Probe', 'Thermometer', 'Ultraviolet Spectrometer', 'Wet Chemistry Laboratory', 'X-ray Defraction Spectrometer', 'X-ray Detector', 'X-ray Fluorescence', 'X-ray Fluorescence Spectrometer'. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]/*:Instrument[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]"; Test: "if (pds:type) then pds:type = ('Accelerometer', 'Alpha Particle Detector', 'Alpha Particle Xray Spectrometer', 'Altimeter', 'Anemometer', 'Atomic Force Microscope', 'Barometer', 'Biology Experiments', 'Bolometer', 'Camera', 'Cosmic Ray Detector', 'Dust Detector', 'Electrical Probe', 'Energetic Particle Detector', 'Gamma Ray Detector', 'Gas Analyzer', 'Grinding And Drilling Tool', 'Hygrometer', 'Imager', 'Imaging Spectrometer', 'Inertial Measurement Unit', 'Infrared Spectrometer', 'Laser Induced Breakdown Spectrometer', 'Magnetometer', 'Mass Spectrometer', 'Microwave Spectrometer', 'Moessbauer Spectrometer', 'Naked Eye', 'Neutral Particle Detector', 'Neutron Detector', 'Photometer', 'Plasma </pre>

	<p>Analyzer', 'Plasma Detector', 'Plasma Wave Spectrometer', 'Polarimeter', 'RADAR', 'Radio Science', 'Radio Spectrometer', 'Radio Telescope', 'Radiometer', 'Reflectometer', 'Robotic Arm', 'Spectrograph Imager', 'Spectrometer', 'Thermal And Electrical Conductivity Probe', 'Thermal Imager', 'Thermal Probe', 'Thermometer', 'Ultraviolet Spectrometer', 'Wet Chemistry Laboratory', 'X-ray Defraction Spectrometer', 'X-ray Detector', 'X-ray Fluorescence', 'X-ray Fluorescence Spectrometer') else true()"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB006
Description	Restrict values of Terminological_Entry/preferred_flag to "true" or "false"
Test Steps	<ol style="list-style-type: none"> diff --context=1 ccb006a.xml ccb006b.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb006a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb006b.xml
Test Results	<p>Step 1. The correct value is "true" (or "false"), not "True"</p> <pre> *** ccb006a.xml 2013-11-16 02:27:25.000000000 -0800 --- ccb006b.xml 2013-11-16 02:27:42.000000000 -0800 ***** *** 46,48 **** <language>English</language> ! <preferred_flag>true</preferred_flag> </Terminological_Entry> --- 46,48 ---- <language>English</language> ! <preferred_flag>True</preferred_flag> </Terminological_Entry> </pre> <p>Step 2: the good value</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T10:27:45Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb006a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb006a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre> <p>Step 3: the bad value</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T10:30:44Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb006b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb006b.xml ERROR line 47, 50: cvc-datatype-valid.1.2.1: 'True' is not a valid value for 'boolean'. ERROR line 47, 50: cvc-type.3.1.3: The value 'True' of element 'preferred_flag' is not valid. </pre>

	<p>ERROR The attribute pds:preferred_flag must be equal to one of the following values 'true', 'false'. [Context: "/*:Product_Attribute_Definition[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]/*:DD_Attribute_Full[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]/*:Terminological_Entry[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]"; Test: "if (pds:preferred_flag) then pds:preferred_flag = ('true', 'false') else true()"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB007
Description	Remove attribute unit from Axis_Array
Test Steps	<ol style="list-style-type: none"> 1. <code>grep -n3 "unit>" ccb007a.xml</code> 2. <code>validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb007a.xml</code> 3. <code>diff ccb007a.xml ccb007b.xml</code> 4. <code>validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb007b.xml</code>
Test Results	<p>Step 1. Note that "unit" is illegal in Axis_Array but legal in Element_Array</p> <pre> 142- 143- <Element_Array> 144- <data_type>UnsignedMSB2</data_type> 145- <unit>data number</unit> 146- <scaling_factor>0</scaling_factor> 147- <value_offset>0</value_offset> 148- </Element_Array> -- 149- <Axis_Array> 150- <axis_name>Line</axis_name> 151- <elements>126976</elements> 152- <!--unit>anythingShouldFail</unit--> 153- <sequence_number>1</sequence_number> 154- </Axis_Array> 155- </Array_1D> </pre> <p>Step 2: the good value; unit is commented out</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T10:56:59Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb007a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true</p> <p>Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb007a.xml</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</p> <p>Step 3: The second file has Axis_Array/unit commented out</p> <pre> 152c152 < <!--unit>anythingShouldFail</unit--> -- > <unit>anythingShouldFail</unit> </pre> <p>Step 4: the bad value; schematron flags unit in Axis_Array as deprecated</p> <p>PDS Validate Tool Report</p>

	<p>Configuration: Version 1.4.0 Date 2013-11-16T10:58:45Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb007b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true</p> <p>Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb007b.xml ERROR pds:Axis_Array/pds:unit is deprecated and should not be used. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Array_1D[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:unit[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Axis_Array/pds:unit'"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB008
Description	Modify constraints on ldd_version_id
Test Steps	<ol style="list-style-type: none"> grep ldd_version_id ccb008.xml validate -x PDS4_PDS_1101.xsd -t ccb008.xml validate -x PDS4_PDS_1000.xsd -t ccb008.xml
Test Results	<p>Step 1. This value is legal under 1101 but not under 1000 <ldd_version_id>1.0.0.4</ldd_version_id></p> <p>Step 2: Test value under 1101, which should pass PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T11:01:02Z Core Schematrons [PDS4_PDS_1100.sch] Model Version 1100</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb008.xml] User Specified Schemas [PDS4_PDS_1101.xsd] Severity Level Warnings Recurse Directories true</p> <p>Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb008.xml</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</p> <p>Step 3: Test value under 1000, which should fail PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T11:01:59Z Core Schematrons [PDS4_PDS_1100.sch] Model Version 1100</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb008.xml] User Specified Schemas [PDS4_PDS_1000.xsd] Severity Level Warnings</p>

	Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb008.xml ERROR line 16, 43: cvc-pattern-valid: Value '1.0.0.4' is not facet-valid with respect to pattern '([0-9]+)(\.){1}([0-9]+)' for type 'ldd_version_id'. ERROR line 16, 43: cvc-type.3.1.3: The value '1.0.0.4' of element 'ldd_version_id' is not valid. Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB011
Description	Ensure Identification_Area/logical_identifier has no upper case letters
Test Steps	<ol style="list-style-type: none"> diff --context=1 "logical_identifier" ccb011.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb011a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb011b.xml
Test Results	<p>Step 1: The correct value is all lowercase</p> <pre> *** ccb011a.xml 2013-11-16 02:07:43.000000000 -0800 --- ccb011b.xml 2013-11-16 03:04:12.000000000 -0800 ***** *** 10,12 **** <Identification_Area> ! <logical_identifier>urn:nasa:pds:example.dph.sampleproducts:exampleproducts:array1d.mpfl-m-imp-2-edr-v1.0</logical_identifier> <version_id>1.0</version_id> --- 10,12 ---- <Identification_Area> ! <logical_identifier>urn:nasa:pds:example.DPH.sampleproducts:exampleproducts:array1d.mpfl-m-imp-2-EDR-v1.0</logical_identifier> <version_id>1.0</version_id> </pre> <p>Step 2: The good value</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T11:07:38Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb011a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb011a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre> <p>Step 3: The bad value: "DPH" and "EDR" are capitalized</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T11:08:26Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb011b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: </pre>

	<p>FAIL: file:/Users/rchen/Desktop/testScma1101/ccb011b.xml</p> <p>ERROR The value of the attribute logical_identifier must only contain lower-case letters' [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Identification_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:logical_identifier eq lower-case(pds:logical_identifier)"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB012
Description	Obsolete. This SCR changed legal values for Primary_Result_Summary/data_regime. However, SCR CCB-36 made Primary_Result_Summary/data_regime obsolete.
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	SCMA.CCB013
Description	Ensure lid_reference does not contain version information.
Test Steps	<ol style="list-style-type: none"> 1. grep lid_reference ccb013a.xml 2. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb013a.xml 3. diff ccb013a.xml ccb013b.xml 4. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb013b.xml
Test Results	<p>Step 1. lid_reference's value is legal</p> <pre><lid_reference>urn:nasa:pds:context:instrument_host:instrument_host.mpfl</lid_reference></pre> <p>Step 2: The last step shows a legal value, so this should pass</p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <pre>Version 1.4.0 Date 2013-11-16T11:11:19Z</pre> <p>Parameters:</p> <pre>Targets [file:/Users/rchen/Desktop/testScma1101/ccb013a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true</pre> <p>Validation Details:</p> <pre>PASS: file:/Users/rchen/Desktop/testScma1101/ccb013a.xml</pre> <p>Summary:</p> <pre>1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</pre> <p>Step 3: diff goodFile badFile</p> <pre>diff ccb013a.xml ccb013b.xml 66c66 < <lid_reference>urn:nasa:pds:context:instrument_host:instrument_host.mpfl</lid_reference></pre>

	<pre> --- > <lid_reference>urn:nasa:pds:context:instrument_host:instrument_host.mpfl::1.0</lid_reference> </pre> <p>Step 4: lid_reference is illegal due to suffix “::1.0”.</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T11:12:05Z Parameters: Targets [file:/Users/rchen/Desktop/testing/ccb013b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testSma1101/ccb013b.xml ERROR The value of the attribute lid_reference must not include a value that contains ':' followed by version id [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observing_System[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observing_System_Component[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Internal_Reference[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:lid_reference) then not(contains(pds:lid_reference,':')) else true()"] ERROR The number of colons found in lid_reference: (7) is inconsistent with the number expected: (3:5). [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observing_System[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observing_System_Component[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Internal_Reference[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:lid_reference) then ((\$lid_num_colons >= \$lid_min_required_colons) and (\$lid_num_colons <= \$lid_max_required_colons)) else true()"] Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report </p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB014
Description	Bundle_Member_Entry's lidvid_reference and lid_reference validate the same as Internal_Refrernce's lidvid_reference and lid_reference.
Test Steps	Files ccb014a.xml uses PDS version 1101; ccb014b.xml, 1000. Otherwise, they are the same, including bad values for lid_reference and lidvid_reference. <ol style="list-style-type: none"> diff ccb014a.xml ccb014b.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb014a.xml validate -S PDS4_PDS_1000.sch -x PDS4_PDS_1000.xsd -t ccb014b.xml
Test Results	Step 1. In each file, the first two references are Internal_Reference's. The last two are Bundle_Member_Entry's. The first file is correct: 5 colons for lid_reference; 7 for lidvid_reference <pre> 37c37 < <lid_reference>urn:nasa:pds:context:investigation:mission.mars_pf</lid_reference> --- > <lid_reference>urn:nasa:pds:context:investigation:mission.mars_pf:extraaaaa</lid_reference> 41c41 < <lidvid_reference>urn:nasa:pds:context:investigation:mission.mars_pf::1.0</lidvid_reference> --- > <lidvid_reference>urn:nasa:pds:context:investigation:mission.mars_pf:extrbbbb::1.0</lidvid_reference> 49c49 < <lid_reference>urn:nasa:pds:context:agency</lid_reference> </pre>


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> <lid_reference>urn:nasa:pds:context:agency:extrccccccc</lid_reference>
54c54
< <lidvid_reference>urn:nasa:pds:context:instrument::1.0</lidvid_reference>
---
> <lidvid_reference>urn:nasa:pds:context:instrument:extrdrrrrrr::1.0</lidvid_reference>

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Step 2: The good value

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PDS Validate Tool Report
Configuration:
  Version      1.4.0
  Date         2013-11-16T11:38:59Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1101/ccb014a.xml]
  User Specified Schemas [PDS4_PDS_1101.xsd]
  User Specified Schematrons [PDS4_PDS_1101.sch]
  Severity Level      Warnings
  Recurse Directories true
Validation Details:
  PASS: file:/Users/rchen/Desktop/testScma1101/ccb014a.xml
Summary:
  1 of 1 file(s) processed, 0 skipped
  1 of 1 file(s) passed validation
End of Report

```

Step 3: The bad value. The “:extraaaaa” is illegal in both references, both contexts.

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PDS Validate Tool Report
Configuration:
  Version      1.4.0
  Date         2013-11-16T11:42:41Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1101/ccb014b.xml]
  User Specified Schemas [PDS4_PDS_1101.xsd]
  User Specified Schematrons [PDS4_PDS_1101.sch]
  Severity Level      Warnings
  Recurse Directories true
Validation Details:
  FAIL: file:/Users/rchen/Desktop/testScma1101/ccb014b.xml
  ERROR The number of colons found in lid_reference: (5) is inconsistent with the number expected: 4.
  [Context: "/*:Product_Bundle[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Bundle_Member_Entry[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:lid_reference) then ($lid_num_colons eq
  $lid_required_colons) else true()"]
  ERROR The number of colons found in lidvid_reference: (7) is inconsistent with the number expected:
  6. [Context: "/*:Product_Bundle[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Bundle_Member_Entry[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][2]"; Test: "if (pds:lidvid_reference) then ($lidvid_num_colons
  eq $lidvid_required_colons) else true()"]
  ERROR The number of colons found in lid_reference: (6) is inconsistent with the number expected:
  (3:5). [Context: "/*:Product_Bundle[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Reference_List[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Internal_Reference[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:lid_reference) then (($lid_num_colons >=
  $lid_min_required_colons) and ($lid_num_colons <= $lid_max_required_colons)) else true()"]
  ERROR The number of colons found in lidvid_reference: (8) is inconsistent with the number expected:
  (5:7). [Context: "/*:Product_Bundle[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Reference_List[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Internal_Reference[namespace-
  uri()='http://pds.nasa.gov/pds4/pds/v1'][2]"; Test: "if (pds:lidvid_reference) then (($lidvid_num_colons
  >= $lidvid_min_required_colons) and ($lidvid_num_colons <= $lidvid_max_required_colons)) else
  true()"]
Summary:
  1 of 1 file(s) processed, 0 skipped
  0 of 1 file(s) passed validation
End of Report

```

Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB015
Description	Ensure Identification_Area/product_class matches parent's product class
Test Steps	<p>The two input files are Product_Observational and Product_Bundle with appropriate Identification_Area/product_class. Modify that value to</p> <ol style="list-style-type: none"> 1. grep roduct_ccb015* 2. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb015a.xml 3. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb015b.xml 4. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb015c.xml 5. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb015d.xml
Test Results	<p>Step 1. Show the parents' product classes and the product_class. They match for a and c and clash for b and d.</p> <pre> ccb015a.xml:<Product_Observational xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015a.xml: <product_class>Product_Observational</product_class> ccb015a.xml: </Product_Observational> ccb015b.xml:<Product_Observational xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015b.xml: <product_class>product_observational</product_class> ccb015b.xml: </Product_Observational> ccb015c.xml:<Product_Bundle xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015c.xml: <product_class>Product_Bundle</product_class> ccb015c.xml:</Product_Bundle> ccb015d.xml:<Product_Bundle xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015d.xml: <product_class>Product_Observational</product_class> ccb015d.xml:</Product_Bundle> </pre> <p>Step 2: good values</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T16:11:41Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb015a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb015a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre> <p>Step 3: bad values: "Product_Observational" vs "product_observational"</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T16:11:49Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb015b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb015b.xml ERROR The attribute pds:product_class must match parent product class of 'Product_Observational'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Identification_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:product_class = local-name(*)"] ERROR The attribute pds:product_class must be equal to one of the following values 'Product_AIP', 'Product_Attribute_Definition', 'Product_Browse', 'Product_Bundle', 'Product_Class_Definition', 'Product_Collection', 'Product_Context', 'Product_DIP', 'Product_DIP_Deep_Archive', 'Product_Data_Set_PDS3', 'Product_Document', 'Product_File_Repository', 'Product_File_Text', 'Product_Instrument_Host_PDS3', 'Product_Instrument_PDS3', 'Product_Mission_PDS3', 'Product_Observational', 'Product_Proxy_PDS3', 'Product_SIP', 'Product_SPICE_Kernel', 'Product_Service', 'Product_Software', 'Product_Subscription_PDS3', 'Product_Target_PDS3', 'Product_Thumbnail', 'Product_Update', 'Product_Volume_PDS3', 'Product_Volume_Set_PDS3', </pre>

	<pre> 'Product_XML_Schema', 'Product_Zipped'. [Context: "/*:Product_Observational[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Identification_Area[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:product_class) then pds:product_class = ('Product_AIP', 'Product_Attribute_Definition', 'Product_Browse', 'Product_Bundle', 'Product_Class_Definition', 'Product_Collection', 'Product_Context', 'Product_DIP', 'Product_DIP_Deep_Archive', 'Product_Data_Set_PDS3', 'Product_Document', 'Product_File_Repository', 'Product_File_Text', 'Product_Instrument_Host_PDS3', 'Product_Instrument_PDS3', 'Product_Mission_PDS3', 'Product_Observational', 'Product_Proxy_PDS3', 'Product_SIP', 'Product_SPICE_Kernel', 'Product_Service', 'Product_Software', 'Product_Subscription_PDS3', 'Product_Target_PDS3', 'Product_Thumbnail', 'Product_Update', 'Product_Volume_PDS3', 'Product_Volume_Set_PDS3', 'Product_XML_Schema', 'Product_Zipped') else true()"] Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report Step 4: bad values. "Product_Bundle" vs. "Product_Observational" PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T16:14:55Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb015c.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb015c.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report Step 5: Any change to product_class in either file causes a failure. PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T16:16:12Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb015d.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb015d.xml ERROR The attribute pds:product_class must match parent product class of 'Product_Bundle'. [Context: "/*:Product_Bundle[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Identification_Area[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:product_class = local-name(/*)"] Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report </pre>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB016
Description	Add new Unit_of_Measure class "Units_of_Wavenumber". Merged into SCMA.CCB042
Test Steps	
Test Results	

Comments	See Comments for SCMA.CCB042, i.e. Results met success criteria.
Date of Testing	2013.11.21
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB017
Description	Add Array_1D class in File_Area_Observational, File_Area_Observational_Supplemental, and File_Area_Browse
Test Steps	<p>ccb017a.xml, ccb017b.xml, and ccb017c.xml demonstrate File_Area_Observational, File_Area_Observational_Supplemental, and File_Area_Browse, respectively.</p> <ol style="list-style-type: none"> 1. Edit ccb017a.xml and search for "Array_1D". 2. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb017a.xml 3. diff ccb017a.xml ccb017b.xml. 4. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb017b.xml 5. Edit ccb017c.xml and search for "Array_1D". 6. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb017c.xml
Test Results	<p>Step 1. The .xml file contains</p> <pre> <File_Area_Observational> [snip] <Array_1D> <local_identifier>MPFL-M-IMP_IMG_GRAYSCALE</local_identifier> <offset unit="byte">0</offset> <axes>1</axes> <axis_index_order>Last Index Fastest</axis_index_order> <Element_Array> <data_type>UnsignedMSB2</data_type> <unit>data number</unit> <scaling_factor>0</scaling_factor> <value_offset>0</value_offset> </Element_Array> <Axis_Array> <axis_name>Line</axis_name> <elements>126976</elements> <sequence_number>1</sequence_number> </Axis_Array> </Array_1D> </File_Area_Observational> </pre> <p>Step 2:</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T21:25:10Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb017a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb017a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre> <p>Step 3 shows the addition of File_Area_Observational_Supplemental/Array_1D</p> <pre> 152a153,181 > > <File_Area_Observational_Supplemental> > <File> > <file_name>i943630r.raw</file_name> > <local_identifier>i943630r.raw</local_identifier> > <creation_date_time>2009-05-04T13:46:30.1158Z</creation_date_time> </pre>

```

> <file_size unit="byte">126976</file_size>
> <records>270</records>
> <md5_checksum>d220dac0d1fe312f3f3b9c824f6ac294</md5_checksum>
</File>
> <Array_1D>
> <local_identifier>MPFL-M-IMP_IMG_GRAYSCALE</local_identifier>
> <offset unit="byte">0</offset>
> <axes>1</axes>
> <axis_index_order>Last Index Fastest</axis_index_order>
>
> <Element_Array>
> <data_type>UnsignedMSB2</data_type>
> <unit>data number</unit>
> <scaling_factor>0</scaling_factor>
> <value_offset>0</value_offset>
> </Element_Array>
> <Axis_Array>
> <axis_name>Line</axis_name>
> <elements>126976</elements>
> <sequence_number>1</sequence_number>
> </Axis_Array>
> </Array_1D>
> </File_Area_Observational_Supplemental>

```

Step 4:

PDS Validate Tool Report

Configuration:

```

Version      1.4.0
Date        2013-11-16T21:25:47Z

```

Parameters:

```

Targets      [file:/Users/rchen/Desktop/testScma1101/ccb017b.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level      Warnings
Recurse Directories true

```

Validation Details:

PASS: file:/Users/rchen/Desktop/testScma1101/ccb017b.xml

Summary:

```

1 of 1 file(s) processed, 0 skipped
1 of 1 file(s) passed validation
End of Report

```

Step 5: the .xml file contains

```

<File_Area_Browse>
[snip]
<Array_1D>
<local_identifier>MPFL-M-IMP_IMG_GRAYSCALE</local_identifier>
<offset unit="byte">0</offset>
<axes>1</axes>
<axis_index_order>Last Index Fastest</axis_index_order>
<Element_Array>
<data_type>UnsignedMSB2</data_type>
<unit>data number</unit>
<scaling_factor>0</scaling_factor>
<value_offset>0</value_offset>
</Element_Array>
<Axis_Array>
<axis_name>Line</axis_name>
<elements>126976</elements>
<sequence_number>1</sequence_number>
</Axis_Array>
</Array_1D>
</File_Area_Browse>

```

Step 6:

PDS Validate Tool Report

Configuration:

```

Version      1.4.0
Date        2013-11-16T21:26:49Z

```

Parameters:

```

Targets      [file:/Users/rchen/Desktop/testScma1101/ccb017c.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]

```

	Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb017c.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB018
Description	To instrument_host/type, add "Lander" and remove "Earth Based"
Test Steps	Two Product_Context/Instrument_Host files are the same except the first has <type>Lander</type> while the second has <type>Earth-based</type>. <ol style="list-style-type: none"> diff ccb018a.xml ccb018b.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb018a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb018b.xml
Test Results	Step 1. So ccb018a.xml has the good value; ccb018b.xml, the bad <pre> 38c38 < <type>Lander</type> --- > <type>Earth Based</type> </pre> Step 2: This has the good value so passes <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T21:34:25Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb018a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb018a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre> Step 4: This has the bad value "Earth Based" so fails ("Earth-based" would pass) <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T21:36:59Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb018b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb018b.xml ERROR The value Earth Based for attribute Instrument_Host.type is deprecated and should not be used. [Context: "/*:Product_Context[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Instrument_Host[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:type != 'Earth Based'"] ERROR The attribute pds:type must be equal to one of the following values 'Earth-based', 'Lander', 'Rover', 'Spacecraft'. [Context: "/*:Product_Context[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Instrument_Host[namespace- </pre>

	<pre>uri()='http://pds.nasa.gov/pds4/pds/v1'[1]"; Test: "if (pds:type) then pds:type = ('Earth-based', 'Lander', 'Rover', 'Spacecraft') else true()]" Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</pre>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB019
Description	Enumerate values of Target_Identification/type
Test Steps	<ol style="list-style-type: none"> diff --context=2 ccb019a.xml ccb019b.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb019a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb019b.xml
Test Results	<p>Step 1: Good values for Target_Identification/type: "Asteroid", "Dust", "Planet", ...</p> <pre>*** ccb019a.xml 2013-11-16 13:39:27.000000000 -0800 --- ccb019b.xml 2013-11-16 02:12:36.000000000 -0800 ***** *** 69,73 **** <Target_Identification> <name>MARS</name> ! <type>Planet</type> <description>description of MARS goes here</description> <Internal_Reference> --- 69,73 ---- <Target_Identification> <name>MARS</name> ! <type>someUnknownValue</type> <description>description of MARS goes here</description> <Internal_Reference></pre> <p>Step 2: The good value</p> <pre>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T21:53:46Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb019a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb019a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</pre> <p>Step 3: The bad value</p> <pre>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T21:43:18Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb019b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb019b.xml ERROR The attribute pds:type must be equal to one of the following values 'Asteroid', 'Comet', 'Dust',</pre>

	<p>'Dwarf Planet', 'Galaxy', 'Globular Cluster', 'Meteorite', 'Meteoroid', 'Meteoroid Stream', 'Nebula', 'Open Cluster', 'Planet', 'Planetary Nebula', 'Planetary System', 'Plasma Cloud', 'Ring', 'Satellite', 'Star', 'Star Cluster', 'Sun', 'Terrestrial Sample', 'Trans-Neptunian Object'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]/*:Target_Identification[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1']][1]"; Test: "if (pds:type) then pds:type = ('Asteroid', 'Comet', 'Dust', 'Dwarf Planet', 'Galaxy', 'Globular Cluster', 'Meteorite', 'Meteoroid', 'Meteoroid Stream', 'Nebula', 'Open Cluster', 'Planet', 'Planetary Nebula', 'Planetary System', 'Plasma Cloud', 'Ring', 'Satellite', 'Star', 'Star Cluster', 'Sun', 'Terrestrial Sample', 'Trans-Neptunian Object') else true()"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB022
Description	Adopt rules for case of enumerated values
Test Steps	<ol style="list-style-type: none"> 1. diff ccb022a.xml ccb022b.xml 2. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb022a.xml 3. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb022b.xml
Test Results	<p>Step 1. CCB-22 declares "Address" and "Real" correct over "ADDRESS" and "REAL"</p> <pre> 40c40 < <attribute_concept>Address</attribute_concept> --- > <attribute_concept>ADDRESS</attribute_concept> 61c61 < <conceptual_domain>Real</conceptual_domain> --- > <conceptual_domain>REAL</conceptual_domain> </pre> <p>Step 2:</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-22T10:20:42Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/ccb022a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101a/ccb022a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</p> <p>Step 3:</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-22T10:21:15Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/ccb022b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101a/ccb022b.xml ERROR The attribute pds:attribute_concept must be equal to one of the following values 'Address',</p>

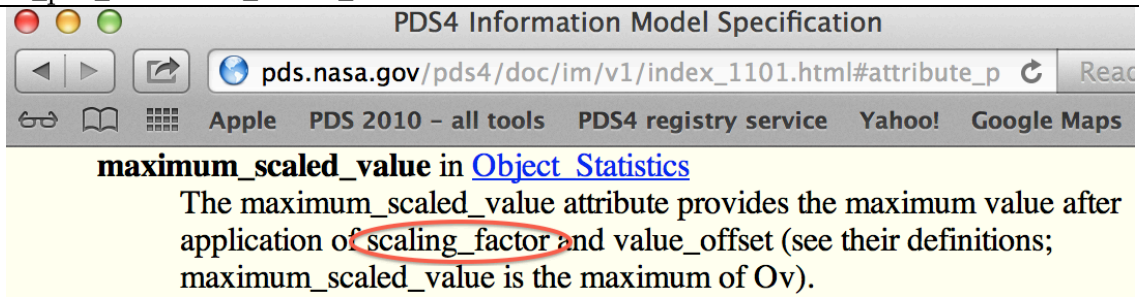
	<p>'Angle', 'Attribute', 'Bit', 'Checksum', 'Collection', 'Constant', 'Cosine', 'Count', 'DOI', 'Delimiter', 'Description', 'Deviation', 'Direction', 'Distance', 'Duration', 'Factor', 'Flag', 'Format', 'Group', 'Home', 'ID', 'Latitude', 'Length', 'List', 'Location', 'Logical', 'Longitude', 'Mask', 'Maximum', 'Mean', 'Median', 'Minimum', 'Name', 'Note', 'Number', 'Offset', 'Order', 'Parallel', 'Password', 'Path', 'Pattern', 'Pixel', 'Quaternion', 'Radius', 'Ratio', 'Reference', 'Resolution', 'Role', 'Rotation', 'Scale', 'Sequence', 'Set', 'Size', 'Status', 'Summary', 'Syntax', 'Temperature', 'Text', 'Title', 'Type', 'Unit', 'Unknown', 'Value', 'Vector'. [Context: "/*:Product_Attribute_Definition[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute_Full[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:attribute_concept = ('Address', 'Angle', 'Attribute', 'Bit', 'Checksum', 'Collection', 'Constant', 'Cosine', 'Count', 'DOI', 'Delimiter', 'Description', 'Deviation', 'Direction', 'Distance', 'Duration', 'Factor', 'Flag', 'Format', 'Group', 'Home', 'ID', 'Latitude', 'Length', 'List', 'Location', 'Logical', 'Longitude', 'Mask', 'Maximum', 'Mean', 'Median', 'Minimum', 'Name', 'Note', 'Number', 'Offset', 'Order', 'Parallel', 'Password', 'Path', 'Pattern', 'Pixel', 'Quaternion', 'Radius', 'Ratio', 'Reference', 'Resolution', 'Role', 'Rotation', 'Scale', 'Sequence', 'Set', 'Size', 'Status', 'Summary', 'Syntax', 'Temperature', 'Text', 'Title', 'Type', 'Unit', 'Unknown', 'Value', 'Vector') else true()"]</p> <p>ERROR The attribute pds:conceptual_domain must be equal to one of the following values 'Boolean', 'Integer', 'Name', 'Numeric', 'Real', 'Short_String', 'Text', 'Time', 'Type', 'Unknown'. [Context: "/*:Product_Attribute_Definition[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute_Full[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Value_Domain_Full[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:conceptual_domain = ('Boolean', 'Integer', 'Name', 'Numeric', 'Real', 'Short_String', 'Text', 'Time', 'Type', 'Unknown') else true()"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.22
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB024
Description	Add "CDF 3.4 ISTEP/IACG" as a parsing_standard_id
Test Steps	<ol style="list-style-type: none"> diff ccb024a.xml ccb024b.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb024a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb024b.xml
Test Results	<p>Step 1: the good value is "CDF 3.4...", not "CDF 3.2..."</p> <pre> 135c135 < <parsing_standard_id>CDF 3.4 ISTEP/IACG</parsing_standard_id> --- > <parsing_standard_id>CDF 3.2 ISTEP/IACG</parsing_standard_id> </pre> <p>Step 2: the good one</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T21:59:17Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb024a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb024a.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</p> <p>Step 3: the bad one</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-16T22:11:32Z</p>

	Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb024b.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101/ccb024b.xml ERROR The attribute pds:parsing_standard_id must be equal to one of the following values '7-Bit ASCII Text', 'CDF 3.4 ISTP/IACG', 'FITS 3.0', 'ISIS2', 'ISIS3', 'PDS DSV 1', 'PDS ODL 2', 'PDS3', 'Pre-PDS3', 'UTF-8 Text', 'VICAR1', 'VICAR2'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Header[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:parsing_standard_id) then pds:parsing_standard_id = ('7-Bit ASCII Text', 'CDF 3.4 ISTP/IACG', 'FITS 3.0', 'ISIS2', 'ISIS3', 'PDS DSV 1', 'PDS ODL 2', 'PDS3', 'Pre-PDS3', 'UTF-8 Text', 'VICAR1', 'VICAR2') else true()"] Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB026
Description	Add ldd_version_id to XML_Schema Class
Test Steps	Files ccb026a.xml uses PDS version 1100; ccb026b.xml, 1000. Otherwise, they are the same, including new attribute XML_Schema/ldd_version_id. 1. Edit ccb026.xml to see Product_XML_Schema/Identification_Area/information_model_version 2. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb026.xml
Test Results	Step 1: the file includes <Product_XML_Schema xmlns="http://pds.nasa.gov/pds4/pds/v1" ... <Identification_Area> ... <information_model_version>1.1.0.1</information_model_version> Step 2: PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-17T02:06:21Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb026.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb026.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB027
Description	Add optional attribute Axis_Array/local_identifier
Test Steps	<ol style="list-style-type: none"> 1. Edit ccb017a.xml and search for "local_identifier". 2. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb027.xml
Test Results	<p>Step 1. The .xml file contains</p> <pre> <File_Area_Observational> [snip] <Axis_Array> <axis_name>Line</axis_name> <local_identifier>thisIsNew</local_identifier> <elements>126976</elements> <sequence_number>1</sequence_number> </Axis_Array> </Array_ID> </File_Area_Observational> </pre> <p>Step 2:</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-17T04:11:43Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb027.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb027.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report </pre>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB028
Description	Typographical error in definition of min/maximum_scaled_value. In the PDS4 Information Model Specification (not any .xml, .xsd, or .sch file), Object_Statistics.maximum_scaled_value and Object_Statistics.minimum_scaled_value should have "scaling_factor" not "scaling_value"
Test Steps	http://pds.nasa.gov/pds4/doc/im/v1/index_1101.html#attribute_pds_object_statistics_pds_maximum_scaled_value
Test Results	 <p>maximum_scaled_value in Object Statistics</p> <p>The maximum_scaled_value attribute provides the maximum value after application of scaling_factor and value_offset (see their definitions; maximum_scaled_value is the maximum of Ov).</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16

Test Personnel	Richard Chen
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Test Case ID	SCMA.CCB031
Description	Obsolete. CCB-42 requested corrections to this implementation.
Test Steps	
Test Results	
Comments	
Date of Testing	
Test Personnel	

Test Case ID	SCMA.CCB036
Description	Redesign Primary_Result_Summary Class
Test Steps	<ol style="list-style-type: none"> 1. Edit ccb036.xml and search for "Primary_Result_Summary". 2. validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t ccb036.xml
Test Results	<p>Step 1: the .xml file contains</p> <pre> <Primary_Result_Summary> <!-- deprecated <type>type0</type> --> <purpose>Calibration</purpose> <!-- deprecated <data_regime>data_regime0</data_regime> --> <processing_level>Calibrated</processing_level> <!-- deprecated <processing_level_id>processing_level_id0</processing_level_id> --> <description>description2</description> <Science_Facets> <wavelength_range>Microwave</wavelength_range> <domain>Atmosphere</domain> <discipline_name>Fields</discipline_name> <facet1>Electric</facet1> <!-- no values provided by PRS team <subfacet1>subfacet10</subfacet1> --> <facet2>Background</facet2> <!-- no values provided by PRS team <subfacet2>subfacet20</subfacet2> --> </Science_Facets> </Primary_Result_Summary> </pre> <p>Step 2:</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-17T04:17:43Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101/ccb036.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: </pre>

	PASS: file:/Users/rchen/Desktop/testScma1101/ccb036.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB042
Description	Add Unit_of_Measure classes: Spectral_Radiance and Spectral_Irradiance. See also SCMA.CCB016
Test Steps	<p>An LDD defines a new class with the new Unit_of_Measure, and a label uses that class</p> <ol style="list-style-type: none"> 1. diff ccb042a.xml ccb042b.xml 2. validate -x PDS4_PDS_1101.xsd -x PDS4_TEST_1101.xsd -S PDS4_PDS_1101.sch -t ccb042a.xml 3. validate -x PDS4_PDS_1101.xsd -x PDS4_TEST_1101.xsd -S PDS4_PDS_1101.sch -t ccb042b.xml <p>DD_Value_Domain must also reflect any new Unit_of_Measure</p> <ol style="list-style-type: none"> 4. diff ccb042e.xml ccb042f.xml 5. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042e.xml 6. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042f.xml <p>DD_Value_Domain_Full must also reflect any new Unit_of_Measure</p> <ol style="list-style-type: none"> 7. diff ccb042i.xml ccb042j.xml 8. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042i.xml 9. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042j.xml 10. diff ccb042k.xml ccb042l.xml 11. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042k.xml 12. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042l.xml 13. diff ccb042m.xml ccb042n.xml 14. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042m.xml 15. validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t ccb042n.xml
Test Results	<p>Step 1: Units_of_Wavenumber allows only cm**-1, m**-1, nm**-1. Units_of_Spectral_Radiance and Units_of_Spectral_Irradiance also allow units in the first file but not the second. The previous version of the schema incorrectly had backslashes and would have allowed the latter</p> <pre> 93,95c93,95 < <test:wvnumber unit="m**-1">1.09</test:wvnumber> <!--good--> < <test:sradiance unit="W*m**-2*sr**-1*um**-1">1.09</test:sradiance> <!--good--> < <test:siradiance unit="W*m**-2*nm**-1">2.29</test:siradiance> <!--good--> --- > <test:wvnumber unit="W*m**-2*sr**-1*um**-1">1.09</test:wvnumber> <!--bad--> > <test:sradiance unit="W*m***-2*sr**-1*um**-1">1.09</test:sradiance> <!--bad--> > <test:siradiance unit="W*m**-2*nm***-1">2.29</test:siradiance> <!--bad--> </pre> <p>Step 2:</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-22T07:05:25Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/ccb042a.xml] User Specified Schemas [PDS4_PDS_1101.xsd, PDS4_TEST_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings</p>

Step 3:

```

Recurse Directories      true
Validation Details:
PASS: file:/Users/rchen/Desktop/testScma1101a/ccb042a.xml
Summary:
1 of 1 file(s) processed, 0 skipped
1 of 1 file(s) passed validation
End of Report

```

PDS Validate Tool Report

```

Configuration:
Version          1.4.0
Date            2013-11-22T07:06:15Z

```

```

Parameters:
Targets          [file:/Users/rchen/Desktop/testScma1101a/ccb042b.xml]
User Specified Schemas [PDS4_PDS_1101.xsd, PDS4_TEST_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level    Warnings
Recurse Directories      true

```

Validation Details:

```

FAIL: file:/Users/rchen/Desktop/testScma1101a/ccb042b.xml
ERROR line 93, 55: cvc-enumeration-valid: Value 'W*m**-2*sr**-1*um**-1' is not facet-valid with respect to enumeration '[cm**-1, m**-1, nm**-1]'. It must be a value from the enumeration.
ERROR line 93, 55: cvc-attribute.3: The value 'W*m**-2*sr**-1*um**-1' of attribute 'unit' on element 'test:wvnumber' is not valid with respect to its type, 'Units_of_Wavenumber'.
ERROR line 94, 57: cvc-enumeration-valid: Value 'W*m*\ *-2*sr**-1*um**-1' is not facet-valid with respect to enumeration '[W*m**-2*sr**-1*Hz**-1, W*m**-2*sr**-1*nm**-1, W*m**-2*sr**-1*um**-1, W*m**-3*sr**-1, uW*cm**-2*sr**-1*um**-1]'. It must be a value from the enumeration.
ERROR line 94, 57: cvc-attribute.3: The value 'W*m*\ *-2*sr**-1*um**-1' of attribute 'unit' on element 'test:sradiance' is not valid with respect to its type, 'Units_of_Spectral_Radiance'.
ERROR line 95, 51: cvc-enumeration-valid: Value 'W*m**-2*nm*\ *-1' is not facet-valid with respect to enumeration '[SFU, W*m**-2*Hz**-1, W*m**-2*nm**-1, W*m**-3, uW*cm**-2*um**-1]'. It must be a value from the enumeration.
ERROR line 95, 51: cvc-attribute.3: The value 'W*m**-2*nm*\ *-1' of attribute 'unit' on element 'test:siradiance' is not valid with respect to its type, 'Units_of_Spectral_Irradiance'.

```

```

Summary:
1 of 1 file(s) processed, 0 skipped
0 of 1 file(s) passed validation
End of Report

```

Step 4:

```

42c42
< <unit_of_measure_type>Units_of_Wavenumber</unit_of_measure_type>
---
> <unit_of_measure_type>Units_of_WavenumberZZZ</unit_of_measure_type>
56c56
< <unit_of_measure_type>Units_of_Spectral_Radiance</unit_of_measure_type>
---
> <unit_of_measure_type>Units_of_Spectral_RadianceZZZ</unit_of_measure_type>
70c70
< <unit_of_measure_type>Units_of_Spectral_Irradiance</unit_of_measure_type>
---
> <unit_of_measure_type>Units_of_Spectral_IrradianceZZZ</unit_of_measure_type>

```

Step 5:

PDS Validate Tool Report

```

Configuration:
Version          1.4.0
Date            2013-11-22T08:19:03Z

```

```

Parameters:
Targets          [file:/Users/rchen/Desktop/testScma1101a/ccb042e.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level    Warnings
Recurse Directories      true

```

Validation Details:

```

PASS: file:/Users/rchen/Desktop/testScma1101a/ccb042e.xml
Summary:
1 of 1 file(s) processed, 0 skipped
1 of 1 file(s) passed validation
End of Report

```

Step 6:

```

PDS Validate Tool Report
Configuration:

```

Version 1.4.0
Date 2013-11-22T08:20:33Z

Parameters:

Targets [file:/Users/rchen/Desktop/testScma1101a/ccb042f.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level Warnings
Recurse Directories true

Validation Details:

FAIL: file:/Users/rchen/Desktop/testScma1101a/ccb042f.xml

ERROR The attribute pds:unit_of_measure_type must be equal to one of the following values
'Units_of_Acceleration', 'Units_of_Amount_Of_Substance', 'Units_of_Angle',
'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency',
'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None',
'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates',
'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage',
'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume',
'Units_of_Wavenumber'. [Context: "/*:Ingest_LDD[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Value_Domain[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:unit_of_measure_type) then
pds:unit_of_measure_type = ('Units_of_Acceleration', 'Units_of_Amount_Of_Substance',
'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate',
'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc',
'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance',
'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance',
'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage',
'Units_of_Volume', 'Units_of_Wavenumber') else true()"]

ERROR The attribute pds:unit_of_measure_type must be equal to one of the following values
'Units_of_Acceleration', 'Units_of_Amount_Of_Substance', 'Units_of_Angle',
'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency',
'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None',
'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates',
'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage',
'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume',
'Units_of_Wavenumber'. [Context: "/*:Ingest_LDD[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][2]/*:DD_Value_Domain[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:unit_of_measure_type) then
pds:unit_of_measure_type = ('Units_of_Acceleration', 'Units_of_Amount_Of_Substance',
'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate',
'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc',
'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance',
'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance',
'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage',
'Units_of_Volume', 'Units_of_Wavenumber') else true()"]

ERROR The attribute pds:unit_of_measure_type must be equal to one of the following values
'Units_of_Acceleration', 'Units_of_Amount_Of_Substance', 'Units_of_Angle',
'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency',
'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None',
'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates',
'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage',
'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume',
'Units_of_Wavenumber'. [Context: "/*:Ingest_LDD[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][3]/*:DD_Value_Domain[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:unit_of_measure_type) then
pds:unit_of_measure_type = ('Units_of_Acceleration', 'Units_of_Amount_Of_Substance',
'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate',
'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc',
'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance',
'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance',
'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage',
'Units_of_Volume', 'Units_of_Wavenumber') else true()"]

Summary:

1 of 1 file(s) processed, 0 skipped
0 of 1 file(s) passed validation

End of Report

Step 7:

64c64

< unit_of_measure_type>Units_of_Wavenumber</unit_of_measure_type>

```

>      <unit_of_measure_type>Units_of_WavenumberYYY</unit_of_measure_type>
Step 8:
PDS Validate Tool Report
Configuration:
  Version      1.4.0
  Date        2013-11-22T08:40:01Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1101a/ccb042i.xml]
  User Specified Schemas [PDS4_PDS_1101.xsd]
  User Specified Schematrons [PDS4_PDS_1101.sch]
  Severity Level      Warnings
  Recurse Directories      true
Validation Details:
  PASS: file:/Users/rchen/Desktop/testScma1101a/ccb042i.xml
Summary:
  1 of 1 file(s) processed, 0 skipped
  1 of 1 file(s) passed validation
End of Report

Step 9:
PDS Validate Tool Report
Configuration:
  Version      1.4.0
  Date        2013-11-22T08:40:42Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1101a/ccb042j.xml]
  User Specified Schemas [PDS4_PDS_1101.xsd]
  User Specified Schematrons [PDS4_PDS_1101.sch]
  Severity Level      Warnings
  Recurse Directories      true
Validation Details:
  FAIL: file:/Users/rchen/Desktop/testScma1101a/ccb042j.xml
  ERROR The attribute pds:unit_of_measure_type must be equal to one of the following values
'Units_of_Amount_Of_Substance', 'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area',
'Units_of_Frame_Rate', 'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass',
'Units_of_Misc', 'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure',
'Units_of_Radiance', 'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance',
'Units_of_Spectral_Radiance', 'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time',
'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume', 'Units_of_Wavenumber'. [Context:
"/*:Product_Attribute_Definition[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute_Full[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Value_Domain_Full[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:unit_of_measure_type) then
pds:unit_of_measure_type = ('Units_of_Amount_Of_Substance', 'Units_of_Angle',
'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency',
'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None',
'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates',
'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage',
'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume',
'Units_of_Wavenumber') else true()"]
Summary:
  1 of 1 file(s) processed, 0 skipped
  0 of 1 file(s) passed validation
End of Report

Step 10:
64c64
<      <unit_of_measure_type>Units_of_Spectral_Radiance</unit_of_measure_type>
---
>      <unit_of_measure_type>Units_of_Spectral_RadianceYYY</unit_of_measure_type>

Step 11:
PDS Validate Tool Report
Configuration:
  Version      1.4.0
  Date        2013-11-22T08:50:38Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1101a/ccb042k.xml]
  User Specified Schemas [PDS4_PDS_1101.xsd]
  User Specified Schematrons [PDS4_PDS_1101.sch]
  Severity Level      Warnings
  Recurse Directories      true
Validation Details:
  PASS: file:/Users/rchen/Desktop/testScma1101a/ccb042k.xml

```


Step 12:

Summary:
1 of 1 file(s) processed, 0 skipped
1 of 1 file(s) passed validation
End of Report

PDS Validate Tool Report

Configuration:

Version 1.4.0
Date 2013-11-22T08:51:12Z

Parameters:

Targets [file:/Users/rchen/Desktop/testScma1101a/ccb042l.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level Warnings
Recurse Directories true

Validation Details:

FAIL: file:/Users/rchen/Desktop/testScma1101a/ccb042l.xml
ERROR The attribute pds:unit_of_measure_type must be equal to one of the following values
'Units_of_Amount_Of_Substance', 'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area',
'Units_of_Frame_Rate', 'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass',
'Units_of_Misc', 'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure',
'Units_of_Radiance', 'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance',
'Units_of_Spectral_Radiance', 'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time',
'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume', 'Units_of_Wavenumber'. [Context:
"/*:Product_Attribute_Definition[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute_Full[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Value_Domain_Full[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:unit_of_measure_type) then
pds:unit_of_measure_type = ('Units_of_Amount_Of_Substance', 'Units_of_Angle',
'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency',
'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None',
'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates',
'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage',
'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume',
'Units_of_Wavenumber') else true()"]

Summary:
1 of 1 file(s) processed, 0 skipped
0 of 1 file(s) passed validation
End of Report

Step 13:

64c64
< unit_of_measure_type>Units_of_Spectral_Irradiance</unit_of_measure_type>

> <unit_of_measure_type>Units_of_Spectral_IrradianceYYY</unit_of_measure_type>

Step 14:

PDS Validate Tool Report

Configuration:

Version 1.4.0
Date 2013-11-22T08:52:14Z

Parameters:

Targets [file:/Users/rchen/Desktop/testScma1101a/ccb042m.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level Warnings
Recurse Directories true

Validation Details:

PASS: file:/Users/rchen/Desktop/testScma1101a/ccb042m.xml

Summary:
1 of 1 file(s) processed, 0 skipped
1 of 1 file(s) passed validation
End of Report

Step 15:

PDS Validate Tool Report

Configuration:

Version 1.4.0
Date 2013-11-22T08:52:43Z

Parameters:

Targets [file:/Users/rchen/Desktop/testScma1101a/ccb042n.xml]
User Specified Schemas [PDS4_PDS_1101.xsd]
User Specified Schematrons [PDS4_PDS_1101.sch]
Severity Level Warnings

	<p>Recurse Directories true</p> <p>Validation Details:</p> <p>FAIL: file:/Users/rchen/Desktop/testScma1101a/ccb042n.xml</p> <p>ERROR The attribute pds:unit_of_measure_type must be equal to one of the following values 'Units_of_Amount_Of_Substance', 'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume', 'Units_of_Wavenumber'. [Context: "/*:Product_Attribute_Definition[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Attribute_Full[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Value_Domain_Full[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:unit_of_measure_type) then pds:unit_of_measure_type = ('Units_of_Amount_Of_Substance', 'Units_of_Angle', 'Units_of_Angular_Velocity', 'Units_of_Area', 'Units_of_Frame_Rate', 'Units_of_Frequency', 'Units_of_Length', 'Units_of_Map_Scale', 'Units_of_Mass', 'Units_of_Misc', 'Units_of_None', 'Units_of_Optical_Path_Length', 'Units_of_Pressure', 'Units_of_Radiance', 'Units_of_Rates', 'Units_of_Solid_Angle', 'Units_of_Spectral_Irradiance', 'Units_of_Spectral_Radiance', 'Units_of_Storage', 'Units_of_Temperature', 'Units_of_Time', 'Units_of_Velocity', 'Units_of_Voltage', 'Units_of_Volume', 'Units_of_Wavenumber') else true()"]</p> <p>Summary:</p> <p>1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation</p> <p>End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.22
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1101N2
Description	Fix Deprecation Schematron Rules: Change role=error to role=warning
Test Steps	<p>Validate a label that triggers a warning (typically something deprecated)</p> <ol style="list-style-type: none"> grep -n2 "Earth Based" rel1101n2b.xml grep -n1 "Earth Based" PDS4_PDS_1101.sch grep -n1 "Earth-based" PDS4_PDS_1101.sch validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t rel1101n2b.xml validate -x PDS4_PDS_1101.xsd -S PDS4_PDS_1101.sch -t rel1101n2c.xml
Test Results	<p>Step 1: The offending label:</p> <pre>36- <Instrument_Host> 37- <name>VIKING LANDER 2</name> 38- <type>Earth Based</type> 39- <naif_host_id>VL2</naif_host_id> 40- <description>chop</description></pre> <p>Step 2: The rule that says "Earth Based" is a warning</p> <pre>429- <sch:rule context="pds:Instrument_Host" role="warning"> 430- <sch:assert test="pds:type != 'Earth Based'"> 431- The value Earth Based for attribute Instrument_Host.type is deprecated and should not be used.</sch:assert> 432- </sch:rule></pre> <p>Step 3: The rule allowing only "Earth-based", "Lander", ... Default is error.</p> <pre>PDS4_PDS_1101.sch-423- <sch:rule context="pds:Instrument_Host"> PDS4_PDS_1101.sch-424: <sch:assert test="if (pds:type) then pds:type = ('Earth-based', 'Lander', 'Rover', 'Spacecraft') else true()"> PDS4_PDS_1101.sch-425: The attribute pds:type must be equal to one of the following values 'Earth- based', 'Lander', 'Rover', 'Spacecraft'.</sch:assert> PDS4_PDS_1101.sch-426- </sch:rule></pre> <p>Step 4: Validate flags an error and a warning on the offending label.</p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 1.4.1</p>

Date 2013-12-03T00:04:51Z

Parameters:

Targets [file:/Users/rchen/Desktop/testing/testScma1101/rel1101n2b.xml]

User Specified Schemas [PDS4_PDS_1101.xsd]

User Specified Schematrons [PDS4_PDS_1101.sch]

Severity Level WARNING

Recurse Directories true

Validation Details:

FAIL: file:/Users/rchen/Desktop/testing/testScma1101/rel1101n2b.xml

ERROR The attribute pds:type must be equal to one of the following values 'Earth-based', 'Lander', 'Rover', 'Spacecraft'. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Instrument_Host[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:type) then pds:type = ('Earth-based', 'Lander', 'Rover', 'Spacecraft') else true()"]

WARNING The value Earth Based for attribute Instrument_Host.type is deprecated and should not be used. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Instrument_Host[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:type != 'Earth Based'"]

Summary:

1 of 1 file(s) processed, 0 skipped

0 of 1 file(s) passed validation

End of Report

Step 5: A similarly offending label

PDS Validate Tool Report

Configuration:

Version 1.4.1

Date 2013-12-03T00:05:13Z

Parameters:

Targets [file:/Users/rchen/Desktop/testing/testScma1101/rel1101n2c.xml]

User Specified Schemas [PDS4_PDS_1101.xsd]

User Specified Schematrons [PDS4_PDS_1101.sch]

Severity Level WARNING

Recurse Directories true

Validation Details:

FAIL: file:/Users/rchen/Desktop/testing/testScma1101/rel1101n2c.xml

WARNING pds:Axis_Array/pds:unit is deprecated and should not be used. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Array_2D_Spectrum[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:unit[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Axis_Array/pds:unit'"]

ERROR The attribute pds:line_display_direction must be equal to one of the following values 'Down', 'Up'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Array_2D_Spectrum[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Display_2D_Image[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:line_display_direction) then pds:line_display_direction = ('Down', 'Up') else true()"]

WARNING pds:Primary_Result_Summary/pds:data_regime is deprecated and should not be used. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Primary_Result_Summary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:data_regime[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Primary_Result_Summary/pds:data_regime'"]

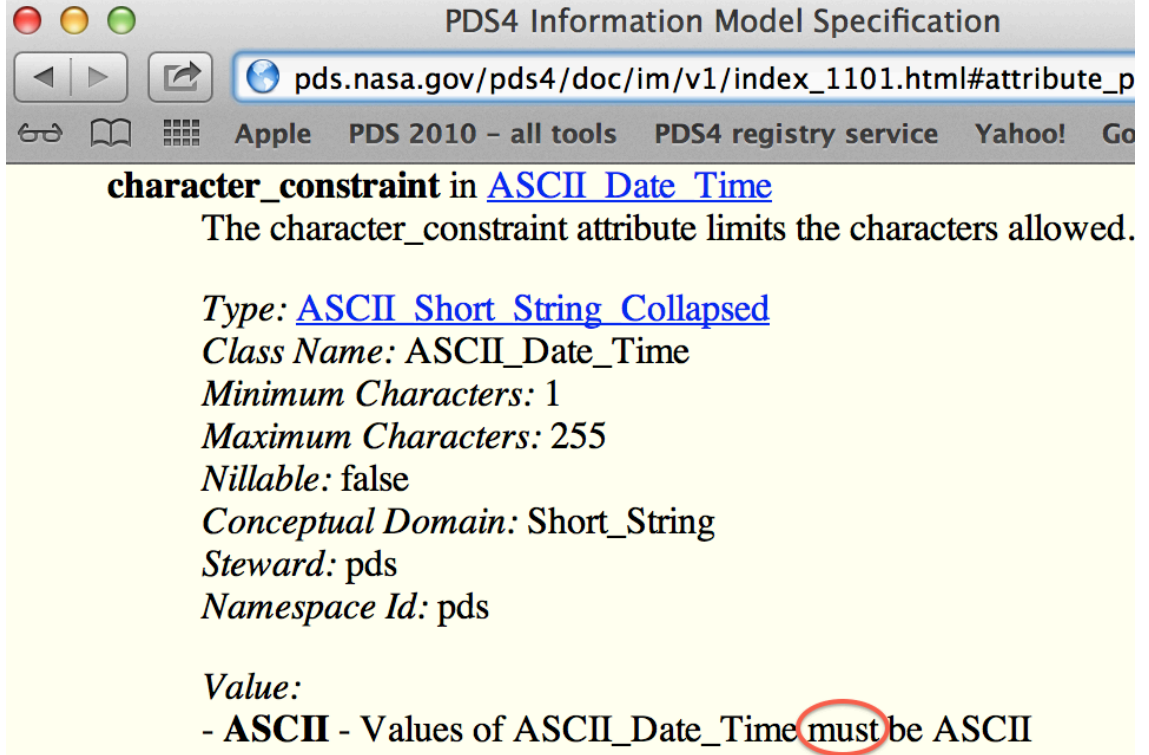
WARNING pds:Primary_Result_Summary/pds:processing_level_id is deprecated and should not be used. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Primary_Result_Summary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:processing_level_id[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Primary_Result_Summary/pds:processing_level_id'"]

WARNING pds:Primary_Result_Summary/pds:type is deprecated and should not be used. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Primary_Result_Summary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Primary_Result_Summary/pds:type'"]

Summary:

1 of 1 file(s) processed, 0 skipped

	0 of 1 file(s) passed validation End of Report
Comments	Results met success criteria.
Date of Testing	2013.11.22
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1101N4
Description	Fix misspelling in value_meaning for character_constraint in ASCII_Date_Time. In the PDS4 Information Model Specification (not any .xml, .xsd, or .sch file), fix "ASCII_Date_Time musyt be ASCII"
Test Steps	http://pds.nasa.gov/pds4/doc/im/v1/index_1101.html#attribute_pds_ascii_date_time_pds_character_constraint
Test Results	
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1101N5
Description	Augment description of <Science_Facets>, <Discipline_Facets>, <Group_Facet1>, and <Group_Facet2> to explain why only <Science_Facets> exists in the schema.
Test Steps	% grep -n1 Discipline_Facets PDS4_PDS_1101.xsd
Test Results	Examine the documentation 2291- <xs:annotation> 2292: <xs:documentation> The Science_Facets class contains the science-related search facets. It is optional and may be repeated if an product has facets related to, for example, two different disciplines (as

	defined by the discipline_name facet). Note that Science_Facets was modeled with Discipline_Facets as a component and Discipline_Facets was modeled with Group_Facet1 and Group_Facet2 as components. This dependency hierarchy was flattened and only Science_Facets exists in the schema. </xs:documentation> 2293- </xs:annotation>
Comments	Results met success criteria.
Date of Testing	2013.11.22
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1101N6
Description	change schematron rule context from pds:Product_Observational/pds:Context_Area/pds:Investigation_Area/pds:Internal_Reference to pds:Product_Observational/pds:Observation_Area/pds:Investigation_Area/pds:Internal_Reference
Test Steps	<ol style="list-style-type: none"> diff rel1101n6a.xml rel1101n6b.xml grep reference_type rel1101n6a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t rel1101n6a.xml validate -S PDS4_PDS_1100.sch -x PDS4_PDS_1100.xsd -t rel1101n6b.xml
Test Results	<p>Step 1: the first label is built for 1.1.0.1; the second, 1.1.0.0; else, identical</p> <pre> 2c2 < ?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1101.sch"?> --- > <?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.sch"?> 8c8 < xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1101.xsd"> --- > xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.xsd"> 15c15 < <information_model_version>1.1.0.1</information_model_version> --- > <information_model_version>1.1.0.0</information_model_version> </pre> <p>Step 2: both labels have the bad value, the first reference_type</p> <pre> <reference_type>data_to_XXXXXXYY</reference_type> <reference_type>is_instrument_host</reference_type> <reference_type>data_to_target</reference_type> </pre> <p>Step 3: new schematron correctly throws error for bad reference_type value</p> <pre> PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-22T10:59:24Z Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/rel1101n6a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101a/rel1101n6a.xml ERROR The attribute reference_type must be set to one of the following values 'data_to_investigation'. [Context: "/*:Product_Observational[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Investigation_Area[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Internal_Reference[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_investigation')"] Summary: 1 of 1 file(s) processed, 0 skipped </pre>

	<p>0 of 1 file(s) passed validation End of Report</p> <p>Step 4: old schematron has no error though it should</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-22T11:00:16Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/rel1101n6b.xml] User Specified Schemas [PDS4_PDS_1100.xsd] User Specified Schematrons [PDS4_PDS_1100.sch] Severity Level Warnings Recurse Directories true</p> <p>Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101a/rel1101n6b.xml</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.22
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1101N7
Description	add value "document_to_target" to rule for Target_Identification/pds:Internal_Reference/pds:reference_type
Test Steps	<ol style="list-style-type: none"> diff rel1101n7a.xml rel1101n7b.xml grep reference_type rel1101n7a.xml validate -S PDS4_PDS_1101.sch -x PDS4_PDS_1101.xsd -t rel1101n7a.xml validate -S PDS4_PDS_1100.sch -x PDS4_PDS_1100.xsd -t rel1101n7b.xml
Test Results	<p>Step 1: the first label is built for 1.1.0.1; the second, 1.1.0.0; else, identical</p> <pre> 2c2 < <?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1101.sch"?> --- > <?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.sch"?> 8c8 < xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1101.xsd"> --- > xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.xsd"> 15c15 < <information_model_version>1.1.0.1</information_model_version> --- > <information_model_version>1.1.0.0</information_model_version> </pre> <p>Step 2: both labels have the new value, the third reference_type</p> <pre> <reference_type>data_to_investigation</reference_type> <reference_type>is_instrument_host</reference_type> <reference_type>document_to_target</reference_type> </pre> <p>Step 3: new schematron accepts value document_to_target</p> <p>PDS Validate Tool Report Configuration: Version 1.4.0 Date 2013-11-22T11:14:45Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/rel1101n7a.xml] User Specified Schemas [PDS4_PDS_1101.xsd] User Specified Schematrons [PDS4_PDS_1101.sch] Severity Level Warnings Recurse Directories true</p> <p>Validation Details:</p>

	<p>PASS: file:/Users/rchen/Desktop/testScma1101a/rel1101n7a.xml</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report</p> <p>Step 4: old schematron rejects value document_to_target</p> <p>PDS Validate Tool Report</p> <p>Configuration: Version 1.4.0 Date 2013-11-22T11:15:32Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1101a/rel1101n7b.xml] User Specified Schemas [PDS4_PDS_1100.xsd] User Specified Schematrons [PDS4_PDS_1100.sch] Severity Level Warnings Recurse Directories true</p> <p>Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1101a/rel1101n7b.xml ERROR The attribute reference_type must be set to one of the following values 'data_to_target', 'collection_to_target', 'bundle_to_target'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Observation_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Target_Identification[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Internal_Reference[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_target', 'collection_to_target', 'bundle_to_target')"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.22
Test Personnel	Richard Chen