

This version of testing covers PDS4\_PDS\_1300.

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
43	43	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	tested as part of CCB-62
CCB-17	pass	
CCB-18	pass	
CCB-19	pass	
CCB-20	pass	Also in 1.2.0.0 rel note 17, 15
CCB-22	pass	
CCB-24	pass	
CCB-26	pass	
CCB-27	pass	
CCB-28	pass w/o test case	documentation change
CCB-29	pass	tested as part of CCB-32
CCB-30	pass	
CCB-31	obsolete	obsoleted by CCB-42
CCB-32	pass	
CCB-33	subsumed	same as 1.2.0.0 rel note 10
CCB-36	pass	
CCB-40	pass	tested as part of CCB-62
CCB-42	pass	tested as part of CCB-62

CCB-43	pass w/o test case	documentation change
CCB-46	pass	
CCB-47	pass w/o test case	documentation change
CCB-48	pass w/o test case	documentation change
CCB-49	pass w/o test case	documentation change
CCB-50	ccb failed	
CCB-51	pass w/o test case	documentation change
CCB-52	pass w/o test case	documentation change
CCB-53	ccb failed	
CCB-56	pass w/o test case	documentation change?
CCB-57	pass w/o test case	documentation change
CCB-60	pass	
CCB-61	ccb failed	
CCB-62	pass	
CCB-63	pass	tested as part of CCB-73
CCB-67	pass	
CCB-68	pass w/o test case	documentation change
CCB-69	obsolete	obsoleted by CCB-40
CCB-70	skip	no functional change
CCB-71	pass	
CCB-73	pass	
CCB-74	pass	
CCB-76	pass	
1.1.0.1 rel note 2	pass	
1.1.0.1 rel note 4	pass w/o test case	documentation change
1.1.0.1 rel note 5	pass w/o test case	documentation change
1.1.0.1 rel note 6	pass	
1.1.0.1 rel note 7	pass	
1.2.0.0 rel note 1	pass	
1.2.0.0 rel note 2	pass	
1.2.0.0 rel note 3	pass	
1.2.0.0 rel note 10	pass	
1.2.0.0 rel note 11	pass	
1.2.0.0 rel note 12	pass	
1.2.0.0 rel note 13	pass	
1.2.0.0 rel note 14	obsolete	obsoleted by CCB-63
1.2.0.0 rel note 15	pass	
1.2.0.0 rel note 16	pass	
1.2.0.0 rel note 17	pass	
1.2.0.0 rel note 18	pass	
1.2.0.0 rel note 19	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"> <li>1. diff --context=1 ccb005a.xml ccb005b.xml</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb005a.xml</li> <li>3. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb005b.xml</li> </ol>
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 ****     &lt;name&gt;Not Really on Cassini&lt;/name&gt; !   &lt;type&gt;Robotic Arm&lt;/type&gt;     &lt;naif_instrument_id&gt;not applicable&lt;/naif_instrument_id&gt; --- 43,45 ----     &lt;name&gt;Not Really on Cassini&lt;/name&gt; !   &lt;type&gt;robotic_arm&lt;/type&gt;     &lt;naif_instrument_id&gt;not applicable&lt;/naif_instrument_id&gt; </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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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"> <li>diff --context=1 ccb006a.xml ccb006b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb006a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb006b.xml</li> </ol>
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 ****       &lt;language&gt;English&lt;/language&gt; !     &lt;preferred_flag&gt;true&lt;/preferred_flag&gt;       &lt;/Terminological_Entry&gt; --- 46,48 ----       &lt;language&gt;English&lt;/language&gt; !     &lt;preferred_flag&gt;True&lt;/preferred_flag&gt;       &lt;/Terminological_Entry&gt; </pre> <p>Step 2: the good value</p> <p>PDS Validate Tool Report  Configuration:  Version 1.4.0  Date 2013-11-16T10:27:45Z</p> <p>Parameters:  Targets [file:/Users/rchen/Desktop/testScma1101/ccb006a.xml]  User Specified Schemas [PDS4_PDS_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.sch]  Severity Level Warnings  Recurse Directories true</p> <p>Validation Details:  PASS: file:/Users/rchen/Desktop/testScma1101/ccb006a.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 bad value</p> <p>PDS Validate Tool Report  Configuration:  Version 1.4.0  Date 2013-11-16T10:30:44Z</p> <p>Parameters:  Targets [file:/Users/rchen/Desktop/testScma1101/ccb006b.xml]  User Specified Schemas [PDS4_PDS_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.sch]  Severity Level Warnings  Recurse Directories true</p> <p>Validation Details:  FAIL: file:/Users/rchen/Desktop/testScma1101/ccb006b.xml</p>

	<p>ERROR line 47, 50: cvc-datatype-valid.1.2.1: 'True' is not a valid value for 'boolean'.</p> <p>ERROR line 47, 50: cvc-type.3.1.3: The value 'True' of element 'preferred_flag' is not valid.</p> <p>ERROR The attribute pds:preferred_flag must be equal to one of the following values 'true', 'false'.</p> <p>[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"> <li>1. <code>grep -n3 "unit&gt;" ccb007a.xml</code></li> <li>2. <code>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb007a.xml</code></li> <li>3. <code>diff ccb007a.xml ccb007b.xml</code></li> <li>4. <code>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb007b.xml</code></li> </ol>
Test Results	<p>Step 1. Note that "unit" is illegal in Axis_Array but legal in Element_Array</p> <pre> 142- 143-     &lt;Element_Array&gt; 144-       &lt;data_type&gt;UnsignedMSB2&lt;/data_type&gt; 145-       &lt;unit&gt;data number&lt;/unit&gt; 146-       &lt;scaling_factor&gt;0&lt;/scaling_factor&gt; 147-       &lt;value_offset&gt;0&lt;/value_offset&gt; 148-     &lt;/Element_Array&gt; -- -- 149-     &lt;Axis_Array&gt; 150-       &lt;axis_name&gt;Line&lt;/axis_name&gt; 151-       &lt;elements&gt;126976&lt;/elements&gt; 152-       &lt;!--unit&gt;anythingShouldFail&lt;/unit--&gt; 153-       &lt;sequence_number&gt;1&lt;/sequence_number&gt; 154-     &lt;/Axis_Array&gt; 155-   &lt;/Array_1D&gt; </pre> <p>Step 2: the good value; unit is commented out</p> <pre> PDS Validate Tool Report Configuration:   Version      1.4.0   Date         2013-11-16T10:56:59Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1101/ccb007a.xml]   User Specified Schemas [PDS4_PDS_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.sch]   Severity Level      Warnings   Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1101/ccb007a.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 second file has Axis_Array/unit commented out</p> <pre> 152c152 &lt;     &lt;!--unit&gt;anythingShouldFail&lt;/unit--&gt; </pre>

	<pre> --- &gt;      &lt;unit&gt;anythingShouldFail&lt;/unit&gt; Step 4: the bad value; schematron flags unit in Axis_Array as deprecated PDS Validate Tool Report Configuration:   Version      1.4.0   Date        2013-11-16T10:58:45Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1101/ccb007b.xml]   User Specified Schemas [PDS4_PDS_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.sch]   Severity Level      Warnings   Recurse Directories true 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'"] 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.CCB008
Description	Modify constraints on ldd_version_id
Test Steps	<ol style="list-style-type: none"> <li>1. grep ldd_version_id ccb008.xml</li> <li>2. validate -x PDS4_PDS_1200.xsd -t ccb008.xml</li> <li>3. validate -x PDS4_PDS_1000.xsd -t ccb008.xml</li> </ol>
Test Results	<p>Step 1. This value is legal under 1101 but not under 1000</p> <pre>&lt;ldd_version_id&gt;1.0.0.4&lt;/ldd_version_id&gt;</pre> <p>Step 2: Test value under 1101, which should pass</p> <pre> PDS Validate Tool Report Configuration:   Version      1.4.0   Date        2013-11-16T11:01:02Z   Core Schematrons [PDS4_PDS_1100.sch]   Model Version      1100 Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1101/ccb008.xml]   User Specified Schemas [PDS4_PDS_1200.xsd]   Severity Level      Warnings   Recurse Directories true Validation Details:   PASS: file:/Users/rchen/Desktop/testScma1101/ccb008.xml Summary:   1 of 1 file(s) processed, 0 skipped   1 of 1 file(s) passed validation End of Report </pre> <p>Step 3: Test value under 1000, which should fail</p> <pre> PDS Validate Tool Report Configuration:   Version      1.4.0   Date        2013-11-16T11:01:59Z </pre>

	<p>Core Schematrons [PDS4_PDS_1100.sch]  Model Version 1100  Parameters:  Targets [file:/Users/rchen/Desktop/testScma1101/ccb008.xml]  User Specified Schemas [PDS4_PDS_1000.xsd]  Severity Level Warnings  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</p>
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"> <li>diff --context=1 "logical_identifier" ccb011.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb011a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb011b.xml</li> </ol>
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 **** &lt;Identification_Area&gt; !   &lt;logical_identifier&gt;urn:nasa:pds:example.dph.sampleproducts:exampleproducts:array1d.mpfl-m-imp-2-edr-v1.0&lt;/logical_identifier&gt;    &lt;version_id&gt;1.0&lt;/version_id&gt; --- 10,12 ---- &lt;Identification_Area&gt; !   &lt;logical_identifier&gt;urn:nasa:pds:example.DPH.sampleproducts:exampleproducts:array1d.mpfl-m-imp-2-EDR-v1.0&lt;/logical_identifier&gt;    &lt;version_id&gt;1.0&lt;/version_id&gt; </pre> <p>Step 2: The good value</p> <p>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_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.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</p> <p>Step 3: The bad value: "DPH" and "EDR" are capitalized</p> <p>PDS Validate Tool Report  Configuration:  Version 1.4.0</p>

	<p>Date 2013-11-16T11:08:26Z</p> <p>Parameters:</p> <p>Targets [file:/Users/rchen/Desktop/testScma1101/ccb011b.xml]</p> <p>User Specified Schemas [PDS4_PDS_1200.xsd]</p> <p>User Specified Schematrons [PDS4_PDS_1200.sch]</p> <p>Severity Level Warnings</p> <p>Recurse Directories true</p> <p>Validation Details:</p> <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:</p> <p>1 of 1 file(s) processed, 0 skipped</p> <p>0 of 1 file(s) passed validation</p> <p>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"> <li>1. grep lid_reference ccb013a.xml</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb013a.xml</li> <li>3. diff ccb013a.xml ccb013b.xml</li> <li>4. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb013b.xml</li> </ol>
Test Results	<p>Step 1. lid_reference's value is legal</p> <p>&lt;lid_reference&gt;urn:nasa:pds:context:instrument_host:instrument_host.mpfl&lt;/lid_reference&gt;</p> <p>Step 2: The last step shows a legal value, so this should pass</p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 1.4.0</p> <p>Date 2013-11-16T11:11:19Z</p> <p>Parameters:</p> <p>Targets [file:/Users/rchen/Desktop/testScma1101/ccb013a.xml]</p> <p>User Specified Schemas [PDS4_PDS_1200.xsd]</p> <p>User Specified Schematrons [PDS4_PDS_1200.sch]</p> <p>Severity Level Warnings</p> <p>Recurse Directories true</p> <p>Validation Details:</p>



	<p>PASS: file:/Users/rchen/Desktop/testScma1101/ccb013a.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: diff goodFile badFile  diff ccb013a.xml ccb013b.xml  66c66  &lt;  &lt;lid_reference&gt;urn:nasa:pds:context:instrument_host:instrument_host.mpfl&lt;/lid_reference&gt;  ---  &gt;  &lt;lid_reference&gt;urn:nasa:pds:context:instrument_host:instrument_host.mpfl::1.0&lt;/lid_reference&gt;</p> <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_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.sch]  Severity Level Warnings  Recurse Directories true</p> <p>Validation Details:  FAIL: file:/Users/rchen/Desktop/testScma1101/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 &gt;= \$lid_min_required_colons) and (\$lid_num_colons &lt;= \$lid_max_required_colons)) 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.CCB014
Description	Bundle_Member_Entry's lidvid_reference and lid_reference validate the same as Internal_Refrncce'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. 1. diff ccb014a.xml ccb014b.xml 2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb014a.xml 3. 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

```
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>
---
> <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:extrddddd::1.0</lidvid_reference>
```

## Step 2: The good value

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\_1200.xsd]  
User Specified Schematrons [PDS4\_PDS\_1200.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.

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\_1200.xsd]  
User Specified Schematrons [PDS4\_PDS\_1200.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

	<pre>&gt;= \$lidvid_min_required_colons) and (\$lidvid_num_colons &lt;= \$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</pre>
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"> <li>grep roduct_ccb015*</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb015a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb015b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb015c.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb015d.xml</li> </ol>
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:&lt;Product_Observational xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015a.xml:  &lt;product_class&gt;Product_Observational&lt;/product_class&gt; ccb015a.xml: &lt;/Product_Observational&gt; ccb015b.xml:&lt;Product_Observational xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015b.xml:  &lt;product_class&gt;product_observational&lt;/product_class&gt; ccb015b.xml: &lt;/Product_Observational&gt; ccb015c.xml:&lt;Product_Bundle xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015c.xml:  &lt;product_class&gt;Product_Bundle&lt;/product_class&gt; ccb015c.xml:&lt;/Product_Bundle&gt; ccb015d.xml:&lt;Product_Bundle xmlns="http://pds.nasa.gov/pds4/pds/v1" ccb015d.xml:  &lt;product_class&gt;Product_Observational&lt;/product_class&gt; ccb015d.xml:&lt;/Product_Bundle&gt;</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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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_1200.xsd]</pre>

```

User Specified Schematrons [PDS4_PDS_1200.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',
'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_1200.xsd]
  User Specified Schematrons [PDS4_PDS_1200.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_1200.xsd]
  User Specified Schematrons [PDS4_PDS_1200.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
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB016
Description	Add Unit_of_Measure class "Units_of_Wavenumber". Merged into SCMA.CCB062
Test Steps	
Test Results	
Comments	See Comments for SCMA.CCB062.
Date of Testing	
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"> <li>1. Edit ccb017a.xml and search for "Array_1D".</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb017a.xml</li> <li>3. diff ccb017a.xml ccb017b.xml.</li> <li>4. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb017b.xml</li> <li>5. Edit ccb017c.xml and search for "Array_1D".</li> <li>6. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb017c.xml</li> </ol>
Test Results	<p>Step 1. The .xml file contains</p> <pre> &lt;File_Area_Observational&gt;   [snip]   &lt;Array_1D&gt;     &lt;local_identifier&gt;MPFL-M-IMP_IMG_GRAYSCALE&lt;/local_identifier&gt;     &lt;offset unit="byte"&gt;0&lt;/offset&gt;     &lt;axes&gt;1&lt;/axes&gt;     &lt;axis_index_order&gt;Last Index Fastest&lt;/axis_index_order&gt;     &lt;Element_Array&gt;       &lt;data_type&gt;UnsignedMSB2&lt;/data_type&gt;       &lt;unit&gt;data number&lt;/unit&gt;       &lt;scaling_factor&gt;0&lt;/scaling_factor&gt;       &lt;value_offset&gt;0&lt;/value_offset&gt;     &lt;/Element_Array&gt;     &lt;Axis_Array&gt;       &lt;axis_name&gt;Line&lt;/axis_name&gt;       &lt;elements&gt;126976&lt;/elements&gt;       &lt;sequence_number&gt;1&lt;/sequence_number&gt;     &lt;/Axis_Array&gt;   &lt;/Array_1D&gt; &lt;/File_Area_Observational&gt; </pre> <p>Step 2:</p> <p>PDS Validate Tool Report  Configuration:  Version                    1.4.0</p>

Date 2013-11-16T21:25:10Z  
Parameters:  
Targets [file:/Users/rchen/Desktop/testScma1101/ccb017a.xml]  
User Specified Schemas [PDS4\_PDS\_1200.xsd]  
User Specified Schematrons [PDS4\_PDS\_1200.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

**Step 3 shows the addition of File\_Area\_Observational\_Supplemental/Array\_1D**

```
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>
> <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\_1200.xsd]  
User Specified Schematrons [PDS4\_PDS\_1200.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>
```

	<pre> &lt;Element_Array&gt;   &lt;data_type&gt;UnsignedMSB2&lt;/data_type&gt;   &lt;unit&gt;data number&lt;/unit&gt;   &lt;scaling_factor&gt;0&lt;/scaling_factor&gt;   &lt;value_offset&gt;0&lt;/value_offset&gt; &lt;/Element_Array&gt; &lt;Axis_Array&gt;   &lt;axis_name&gt;Line&lt;/axis_name&gt;   &lt;elements&gt;126976&lt;/elements&gt;   &lt;sequence_number&gt;1&lt;/sequence_number&gt; &lt;/Axis_Array&gt; &lt;/Array_1D&gt; &lt;/File_Area_Browse&gt; </pre> <p>Step 6:</p> <pre> 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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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 </pre>
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	<p>Two Product_Context/Instrument_Host files are the same except the first has &lt;type&gt;Lander&lt;/type&gt; while the second has &lt;type&gt;Earth-based&lt;/type&gt;.</p> <ol style="list-style-type: none"> <li>1. diff ccb018a.xml ccb018b.xml</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb018a.xml</li> <li>3. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb018b.xml</li> </ol>
Test Results	<p>Step 1. So ccb018a.xml has the good value; ccb018b.xml, the bad</p> <pre> 38c38 &lt; &lt;type&gt;Lander&lt;/type&gt; --- &gt; &lt;type&gt;Earth Based&lt;/type&gt; </pre> <p>Step 2: This has the good value so passes</p> <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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.sch]   Severity Level      Warnings   Recurse Directories true Validation Details: </pre>

	<p>PASS: file:/Users/rchen/Desktop/testScma1101/ccb018a.xml</p> <p>Summary:  1 of 1 file(s) processed, 0 skipped  1 of 1 file(s) passed validation  End of Report</p> <p><b>Step 4: This has the bad value "Earth Based" so fails ("Earth-based" would pass)</b></p> <p>PDS Validate Tool Report  Configuration:  Version 1.4.0  Date 2013-11-16T21:36:59Z</p> <p>Parameters:  Targets [file:/Users/rchen/Desktop/testScma1101/ccb018b.xml]  User Specified Schemas [PDS4_PDS_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.sch]  Severity Level Warnings  Recurse Directories true</p> <p>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-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:type) then pds:type = ('Earth-based', 'Lander', 'Rover', 'Spacecraft') 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.CCB019
Description	Enumerate values of Target_Identification/type
Test Steps	<ol style="list-style-type: none"> <li>diff --context=2 ccb019a.xml ccb019b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb019a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb019b.xml</li> </ol>
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 ****     &lt;Target_Identification&gt;       &lt;name&gt;MARS&lt;/name&gt;     !   &lt;type&gt;Planet&lt;/type&gt;       &lt;description&gt;description of MARS goes here&lt;/description&gt;       &lt;Internal_Reference&gt; --- 69,73 ----     &lt;Target_Identification&gt;       &lt;name&gt;MARS&lt;/name&gt;     !   &lt;type&gt;someUnknownValue&lt;/type&gt;       &lt;description&gt;description of MARS goes here&lt;/description&gt;       &lt;Internal_Reference&gt; </pre> <p>Step 2: The good value</p> <p>PDS Validate Tool Report  Configuration:  Version 1.4.0</p>



	<p>Date 2013-11-16T21:53:46Z</p> <p>Parameters:</p> <p>Targets [file:/Users/rchen/Desktop/testScma1101/ccb019a.xml]</p> <p>User Specified Schemas [PDS4_PDS_1200.xsd]</p> <p>User Specified Schematrons [PDS4_PDS_1200.sch]</p> <p>Severity Level Warnings</p> <p>Recurse Directories true</p> <p>Validation Details:</p> <p>PASS: file:/Users/rchen/Desktop/testScma1101/ccb019a.xml</p> <p>Summary:</p> <p>1 of 1 file(s) processed, 0 skipped</p> <p>1 of 1 file(s) passed validation</p> <p>End of Report</p> <p><b>Step 3: The bad value</b></p> <p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 1.4.0</p> <p>Date 2013-11-16T21:43:18Z</p> <p>Parameters:</p> <p>Targets [file:/Users/rchen/Desktop/testScma1101/ccb019b.xml]</p> <p>User Specified Schemas [PDS4_PDS_1200.xsd]</p> <p>User Specified Schematrons [PDS4_PDS_1200.sch]</p> <p>Severity Level Warnings</p> <p>Recurse Directories true</p> <p>Validation Details:</p> <p>FAIL: file:/Users/rchen/Desktop/testScma1101/ccb019b.xml</p> <p>ERROR The attribute pds:type must be equal to one of the following values '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'. [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:</p> <p>1 of 1 file(s) processed, 0 skipped</p> <p>0 of 1 file(s) passed validation</p> <p>End of Report</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB020
Description	<p>Fix instrument types: see SCMA.REL1200N17.</p> <p>Fix "CCSDS...": see SCMA.REL1200N15.</p> <p>Below: "Navigation Ancillary Information Facility" -&gt; "Navigation and Ancillary ..."</p> <p>Fix DD_Attribute_Full and DD_Value_Domain_Full: not implemented yet</p>
Test Steps	<ol style="list-style-type: none"> <li>diff ccb020a.xml ccb020b.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb020a.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb020b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 37c37 &lt; &lt;name&gt;Navigation and Ancillary Information Facility&lt;/name&gt; --- &gt; &lt;name&gt;Navigation Ancillary Information Facility&lt;/name&gt; </pre> <p>Step 2:</p> <p>good</p> <p>Step 3:</p>

	<p>FAIL: file:/Users/rchen/Desktop/testScma1300/ccb020b.xml</p> <p>ERROR The attribute pds:name must be equal to one of the following values 'Engineering', 'Geosciences', 'Imaging', 'Management', 'Navigation and Ancillary Information Facility', 'Planetary Atmospheres', 'Planetary Plasma Interactions', 'Planetary Rings', 'Planetary Science Archive', 'Radio Science', 'Small Bodies'. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Node[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:name[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('Engineering', 'Geosciences', 'Imaging', 'Management', 'Navigation and Ancillary Information Facility', 'Planetary Atmospheres', 'Planetary Plasma Interactions', 'Planetary Rings', 'Planetary Science Archive', 'Radio Science', 'Small Bodies)']]</p> <p>Step 4:</p> <pre>37c37 &lt; team_name&gt;Navigation and Ancillary Information Facility&lt;/ team_name&gt; --- &gt; &lt; team_name&gt;Navigation Ancillary Information Facility&lt;/ team_name&gt;</pre> <p>Step 5: good</p> <p>Step 6:</p> <p>FAIL: file:/Users/rchen/Desktop/testScma1300/ccb020d.xml</p> <p>WARNING The value Navigation Ancillary Information Facility for attribute PDS_Affiliate.team_name is deprecated and should not be used. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:PDS_Affiliate[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:team_name != 'Navigation Ancillary Information Facility'"]]</p> <p>ERROR The attribute pds:team_name must be equal to one of the following values 'Engineering', 'Geosciences', 'Headquarters', 'Imaging', 'Management', 'National Space Science Data Center', 'Navigation and Ancillary Information Facility', 'Planetary Atmospheres', 'Planetary Plasma Interactions', 'Planetary Rings', 'Radio Science', 'Small Bodies'. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:PDS_Affiliate[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:team_name[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('Engineering', 'Geosciences', 'Headquarters', 'Imaging', 'Management', 'National Space Science Data Center', 'Navigation and Ancillary Information Facility', 'Planetary Atmospheres', 'Planetary Plasma Interactions', 'Planetary Rings', 'Radio Science', 'Small Bodies)']]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.16
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"> <li>diff ccb022a.xml ccb022b.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb022a.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb022b.xml</li> </ol>
Test Results	<p>Step 1. CCB-22 declares "Address" and "Real" correct over "ADDRESS" and "REAL"</p> <pre>40c40 &lt; &lt;attribute_concept&gt;Address&lt;/attribute_concept&gt; --- &gt; &lt;attribute_concept&gt;ADDRESS&lt;/attribute_concept&gt; 61c61 &lt; &lt;conceptual_domain&gt;Real&lt;/conceptual_domain&gt; --- &gt; &lt;conceptual_domain&gt;REAL&lt;/conceptual_domain&gt;</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]</p>

	<p>User Specified Schemas [PDS4_PDS_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.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><b>Step 3:</b></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_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.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', '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) then 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()"]  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) then pds:conceptual_domain = ('Boolean', 'Integer', 'Name', 'Numeric', 'Real', 'Short_String', 'Text', 'Time', 'Type', 'Unknown') 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	2013.11.22
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB024
Description	Add "CDF 3.4 ISTP/IACG" as a parsing_standard_id
Test Steps	<ol style="list-style-type: none"> <li>1. diff ccb024a.xml ccb024b.xml</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb024a.xml</li> <li>3. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb024b.xml</li> </ol>
Test Results	Step 1: the good value is "CDF 3.4...", not "CDF 3.2..." 135c135

	<pre> &lt; &lt;parsing_standard_id&gt;CDF 3.4 ISTP/IACG&lt;/parsing_standard_id&gt; --- &gt; &lt;parsing_standard_id&gt;CDF 3.2 ISTP/IACG&lt;/parsing_standard_id&gt; Step 2: the good one 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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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  Step 3: the bad one PDS Validate Tool Report Configuration:   Version      1.4.0   Date        2013-11-16T22:11:32Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1101/ccb024b.xml]   User Specified Schemas [PDS4_PDS_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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 </pre>
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	<p>Files ccb026a.xml uses PDS version 1100; ccb026b.xml, 1000. Otherwise, they are the same, including new attribute XML_Schema/ldd_version_id.</p> <ol style="list-style-type: none"> <li>1. Edit ccb026.xml to see Product_XML_Schema/Identification_Area/information_model_version</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb026.xml</li> </ol>
Test Results	<p>Step 1: the file includes</p> <pre> &lt;Product_XML_Schema xmlns="http://pds.nasa.gov/pds4/pds/v1" ... </pre>

	<pre> &lt;Identification_Area&gt; ... &lt;information_model_version&gt;1.1.0.1&lt;/information_model_version&gt; </pre> <p>Step 2:</p> <pre> 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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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 </pre>
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"> <li>1. Edit ccb017a.xml and search for "local_identifier".</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb027.xml</li> </ol>
Test Results	<p>Step 1. The .xml file contains</p> <pre> &lt;File_Area_Observational&gt; [snip]   &lt;Axis_Array&gt;     &lt;axis_name&gt;Line&lt;/axis_name&gt;     &lt;local_identifier&gt;thisIsNew&lt;/local_identifier&gt;     &lt;elements&gt;126976&lt;/elements&gt;     &lt;sequence_number&gt;1&lt;/sequence_number&gt;   &lt;/Axis_Array&gt; &lt;/Array_1D&gt; &lt;/File_Area_Observational&gt; </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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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.CCB029
Description	Deprecate Display_2D_Image class. Out of laziness, merged into SCMA.CCB032
Test Steps	<ol style="list-style-type: none"> <li>diff ccb029a.xml ccb029b.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb029a.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb029b.xml</li> </ol>
Test Results	<p>Step 1: the .xml file contains</p> <pre> 126c126 &lt;    &lt;!--Display_2D_Image&gt; this was redeprecated --- &gt;    &lt;Display_2D_Image&gt; 129c129 &lt;    &lt;/Display_2D_Image--&gt; --- &gt;    &lt;/Display_2D_Image&gt; </pre> <p>Step 2: good</p> <p>Step 3:</p> <pre> PDS Validate Tool Report Configuration:   Version      1.5.0   Date         2014-09-16T16:44:55Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1300/ccb030.xml]   User Specified Schemas [PDS4_PDS_1300.xsd]   User Specified Schematrons [PDS4_PDS_1300.sch]   Severity Level      WARNING   Recurse Directories true Validation Details:   PASS: file:/Users/rchen/Desktop/testScma1300/ccb030.xml Summary:   1 of 1 file(s) processed, 0 skipped   1 of 1 file(s) passed validation End of Report </pre>
Comments	
Date of Testing	2014.09.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB030
Description	Add Local_Internal_Reference class
Test Steps	<ol style="list-style-type: none"> <li>Edit ccb030.xml and search for "Local_Internal_Reference".</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb030.xml</li> </ol>
Test Results	<p>Step 1: the .xml file contains</p> <pre> &lt;Local_Internal_Reference&gt;   &lt;local_identifier_reference&gt;anythingGoes&lt;/local_identifier_reference&gt;   &lt;local_reference_type&gt;anythingGoes&lt;/local_reference_type&gt; &lt;/Local_Internal_Reference&gt; </pre> <p>Step 2:</p> <pre> PDS Validate Tool Report Configuration:   Version      1.5.0   Date         2014-09-16T16:44:55Z Parameters: </pre>

	Targets [file:/Users/rchen/Desktop/testScma1300/ccb030.xml] User Specified Schemas [PDS4_PDS_1300.xsd] User Specified Schematrons [PDS4_PDS_1300.sch] Severity Level WARNING Recurse Directories true Validation Details: PASS: file:/Users/rchen/Desktop/testScma1300/ccb030.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report
Comments	
Date of Testing	2014.09.16
Test Personnel	Richard Chen

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.CCB032
Description	Accept Header/parsing_standard_id = "ISIS2 History Label". Out of laziness, SCMA.CCB029 is tested here as well
Test Steps	<ol style="list-style-type: none"> <li>diff ccb032a.xml ccb032b.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb032a.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb032b.xml</li> </ol>
Test Results	Step 1: the .xml file contains <pre> 94c94 &lt; parsing_standard_id&gt;ISIS2 History Label&lt;/parsing_standard_id&gt; &lt;!-- CDF 3.4 ISTP/IACG --&gt; --- &gt; &lt;parsing_standard_id&gt;ISIS2xxx History Label&lt;/parsing_standard_id&gt; &lt;!-- CDF 3.4 ISTP/IACG --&gt; &gt; 126c126 &lt; &lt;!--Display_2D_Image&gt; this was redeprecated --- &gt; &lt;Display_2D_Image&gt; 129c129 &lt; &lt;/Display_2D_Image--&gt; --- &gt; &lt;/Display_2D_Image&gt; </pre> Step 2: good Step 3: <pre> PDS Validate Tool Report Configuration:   Version      1.5.0   Date        2014-09-18T21:03:52Z Parameters: </pre>

	<p>Targets [file:/Users/rchen/Desktop/testScma1300/ccb032b.xml]</p> <p>User Specified Schemas [PDS4_PDS_1300.xsd]</p> <p>User Specified Schematrons [PDS4_PDS_1300.sch]</p> <p>Severity Level WARNING</p> <p>Recurse Directories true</p> <p>Validation Details:</p> <p>FAIL: file:/Users/rchen/Desktop/testScma1300/ccb032b.xml</p> <p>WARNING pds:Display_2D_Image 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]/*:Display_2D_Image[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "false()"]</p> <p>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]/*:line_display_direction[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('Down', 'Up')"]</p> <p>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', 'ISIS2 History Label', '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]/*:parsing_standard_id[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('7-Bit ASCII Text', 'CDF 3.4 ISTP/IACG', 'FITS 3.0', 'ISIS2', 'ISIS2 History Label', 'ISIS3', 'PDS DSV 1', 'PDS ODL 2', 'PDS3', 'Pre-PDS3', 'UTF-8 Text', 'VICAR1', 'VICAR2')"]</p> <p>Summary:</p> <p>1 of 1 file(s) processed, 0 skipped</p> <p>0 of 1 file(s) passed validation</p> <p>End of Report</p>
Comments	
Date of Testing	2014.09.18
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB036
Description	Redesign Primary_Result_Summary Class
Test Steps	<ol style="list-style-type: none"> <li>Edit ccb036.xml and search for "Primary_Result_Summary".</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t ccb036.xml</li> </ol>
Test Results	<p>Step 1: the .xml file contains</p> <pre> &lt;Primary_Result_Summary&gt;   &lt;!-- deprecated   &lt;type&gt;type0&lt;/type&gt;   --&gt;   &lt;purpose&gt;Calibration&lt;/purpose&gt;   &lt;!-- deprecated   &lt;data_regime&gt;data_regime0&lt;/data_regime&gt;   --&gt;   &lt;processing_level&gt;Calibrated&lt;/processing_level&gt;   &lt;!-- deprecated   &lt;processing_level_id&gt;processing_level_id0&lt;/processing_level_id&gt;   --&gt;   &lt;description&gt;description2&lt;/description&gt;  &lt;Science_Facets&gt;   &lt;wavelength_range&gt;Microwave&lt;/wavelength_range&gt;   &lt;domain&gt;Atmosphere&lt;/domain&gt;   &lt;discipline_name&gt;Fields&lt;/discipline_name&gt;   &lt;facet1&gt;Electric&lt;/facet1&gt; </pre>



	<pre> &lt;!-- no values provided by PRS team &lt;subfacet1&gt;subfacet10&lt;/subfacet1&gt; --&gt; &lt;facet2&gt;Background&lt;/facet2&gt; &lt;!-- no values provided by PRS team &lt;subfacet2&gt;subfacet20&lt;/subfacet2&gt; --&gt; &lt;/Science_Facets&gt; &lt;/Primary_Result_Summary&gt; </pre> <p>Step 2:</p> <p>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_1200.xsd]  User Specified Schematrons [PDS4_PDS_1200.sch]  Severity Level Warnings  Recurse Directories true  Validation Details:  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</p>
Comments	Results met success criteria.
Date of Testing	2013.11.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB040
Description	For class Units_of_Radiance, change "W*m**-2*sr**-1" to "W/m**2/sr". Merged into SCMA.CCB062
Test Steps	<p>Delete this in favor of SCMA.CCB062 after resolving this uncertainty.</p> <p>PDS4_PDS_1300.sch has rules for deprecated Units_of_Radiance (+ other Units_of_*). I think they never fire. Perhaps I need to understand the LDD tool better.</p> <p>File ccb040temp.xml has:</p> <pre> &lt;Mission_Area&gt;   &lt;test:routineradiance unit="W*m**-2*sr**-1"&gt;2.2222&lt;/test:routineradiance&gt; &lt;!--bad--&gt;   &lt;test:wvnumber unit="cm**-1"&gt;5.5555&lt;/test:wvnumber&gt; &lt;!--bad--&gt; &lt;/Mission_Area&gt; </pre> <p>PDS4_TEST_1300.sch has:</p> <pre> &lt;xs:element name="routineradiance" type="test:routineradiance"/&gt; &lt;xs:element name="wvnumber" type="test:wvnumber"/&gt; &lt;xs:simpleType name="isExtraLevelNeeded"&gt;   &lt;xs:restriction base="pds:ASCII_Real"&gt;     &lt;xs:minInclusive value="0.0"/&gt;   &lt;/xs:restriction&gt; &lt;/xs:simpleType&gt; &lt;xs:complexType name="routineradiance"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;irrelevant1 for testing.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="test:isExtraLevelNeeded"&gt;       &lt;xs:attribute name="unit" type="pds:Units_of_Radiance" use="required"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; </pre>

	<pre> &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; &lt;xs:complexType name="wvnumber"&gt;   &lt;xs:annotation&gt;     &lt;xs:documentation&gt;irrelevant3 for testing.&lt;/xs:documentation&gt;   &lt;/xs:annotation&gt;   &lt;xs:simpleContent&gt;     &lt;xs:extension base="test:isExtraLevelNeeded"&gt;       &lt;xs:attribute name="unit" type="pds:Units_of_Wavenumber" use="required"/&gt;     &lt;/xs:extension&gt;   &lt;/xs:simpleContent&gt; &lt;/xs:complexType&gt; PDS4_PDS_1300.xsd has: &lt;sch:pattern&gt;   &lt;sch:rule context="pds:Units_of_Radiance" role="warning"&gt;     &lt;sch:assert test="pds:unit_id != 'W*m**-2*sr**-1'"&gt;       The value W*m**-2*sr**-1 for attribute Units_of_Radiance.unit_id is deprecated and should not be       used.&lt;/sch:assert&gt;     &lt;/sch:rule&gt;   &lt;/sch:pattern&gt; ... &lt;sch:pattern&gt;   &lt;sch:rule context="pds:Units_of_Wavenumber" role="warning"&gt;     &lt;sch:assert test="pds:unit_id != 'cm**-1'"&gt;       The value cm**-1 for attribute Units_of_Wavenumber.unit_id is deprecated and should not be       used.&lt;/sch:assert&gt;     &lt;sch:assert test="pds:unit_id != 'm**-1'"&gt;       The value m**-1 for attribute Units_of_Wavenumber.unit_id is deprecated and should not be       used.&lt;/sch:assert&gt;     &lt;sch:assert test="pds:unit_id != 'nm**-1'"&gt;       The value nm**-1 for attribute Units_of_Wavenumber.unit_id is deprecated and should not be       used.&lt;/sch:assert&gt;     &lt;/sch:rule&gt;   &lt;/sch:pattern&gt; I think the intent is for "cm**-1" to be flagged as deprecated, but it's not for: <ul style="list-style-type: none"> <li>• validate -x PDS4_PDS_1300.xsd PDS4_TEST_1300.xsd -S PDS4_PDS_1300.sch -t ccb040temp.xml</li> </ul> </pre>
Test Results	<p>See Comments for SCMA.CCB062.</p> <p>Delete this after resolving this uncertainty:</p> <pre> PDS Validate Tool Report Configuration:   Version      1.5.0   Date         2014-09-18T22:54:11Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1300/ccb040temp.xml]   User Specified Schemas [PDS4_PDS_1300.xsd, PDS4_TEST_1300.xsd]   User Specified Schematrons [PDS4_PDS_1300.sch]   Severity Level      WARNING   Recurse Directories true Validation Details:   PASS: file:/Users/rchen/Desktop/testScma1300/ccb040temp.xml Summary:   1 of 1 file(s) processed, 0 skipped   1 of 1 file(s) passed validation End of Report </pre>
Comments	
Date of Testing	
Test Personnel	

Test Case ID	SCMA.CCB042
Description	Add classes: Units_of_Spectral_Radiance and Units_of_Spectral_Irradiance. Merged into SCMA.CCB062
Test Steps	
Test Results	See Comments for SCMA.CCB062.
Comments	Results met success criteria.
Date of Testing	
Test Personnel	

Test Case ID	SCMA.CCB046
Description	Add Product_Native class
Test Steps	<ol style="list-style-type: none"> <li>1. Edit ccb046.xml and search for "Product_Native".</li> <li>2. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb046.xml</li> </ol>
Test Results	<p>Step 2:</p> <pre> PDS Validate Tool Report Configuration:   Version      1.5.0   Date         2014-09-16T16:44:55Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1300/ccb030.xml]   User Specified Schemas [PDS4_PDS_1300.xsd]   User Specified Schematrons [PDS4_PDS_1300.sch]   Severity Level      WARNING   Recurse Directories true Validation Details:   PASS: file:/Users/rchen/Desktop/testScma1300/ccb030.xml Summary:   1 of 1 file(s) processed, 0 skipped   1 of 1 file(s) passed validation End of Report </pre>
Comments	
Date of Testing	2014.09.16
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB060
Description	Add value Target_Identification/type=Calibration
Test Steps	<ol style="list-style-type: none"> <li>1. diff ccb060a.xml ccb060b.xml</li> <li>2. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb060a.xml</li> <li>3. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb060b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 45c45 &lt; &lt;type&gt;Calibration&lt;/type&gt; &lt;!-- ddri would have flaggd this --&gt; --- &gt; &lt;type&gt;CalibrationXXX&lt;/type&gt; &lt;!-- ddri would have flaggd this --&gt; </pre> <p>Step 2: normal good message</p> <p>Step 3:</p>

	<p>PDS Validate Tool Report</p> <p>Configuration:</p> <p>Version 1.5.0</p> <p>Date 2014-09-19T02:33:14Z</p> <p>Parameters:</p> <p>Targets [file:/Users/rchen/Desktop/testScma1300/ccb060b.xml]</p> <p>User Specified Schemas [PDS4_PDS_1300.xsd]</p> <p>User Specified Schematrons [PDS4_PDS_1300.sch]</p> <p>Severity Level WARNING</p> <p>Recurse Directories true</p> <p>Validation Details:</p> <p>FAIL: file:/Users/rchen/Desktop/testScma1300/ccb060b.xml</p> <p>ERROR The attribute pds:type must be equal to one of the following values 'Asteroid', 'Calibration', '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'. [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]/*:type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: " = ('Asteroid', 'Calibration', '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')"]</p> <p>Summary:</p> <p>1 of 1 file(s) processed, 0 skipped</p> <p>0 of 1 file(s) passed validation</p> <p>End of Report</p>
Comments	
Date of Testing	2014.09.18
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB062
Description	Add Units_of_Current. See also SCMA.CCB016, SCMA.CCB040, SCMA.CCB042
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"> <li>diff ccb062a.xml ccb062b.xml</li> <li>validate -x PDS4_PDS_1300.xsd -x PDS4_TEST_1300.xsd -S PDS4_PDS_1300.sch -t ccb062a.xml</li> <li>validate -x PDS4_PDS_1300.xsd -x PDS4_TEST_1300.xsd -S PDS4_PDS_1300.sch -t ccb062b.xml</li> </ol> <p>DD_Value_Domain must also reflect any new Unit_of_Measure</p> <ol style="list-style-type: none"> <li>diff ccb062e.xml ccb062f.xml</li> <li>validate -x PDS4_PDS_1300.xsd -S PDS4_PDS_1300.sch -t ccb062e.xml</li> <li>validate -x PDS4_PDS_1300.xsd -S PDS4_PDS_1300.sch -t ccb062f.xml</li> </ol> <p>DD_Value_Domain_Full must also reflect any new Unit_of_Measure</p> <ol style="list-style-type: none"> <li>diff ccb062i.xml ccb062j.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062i.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062j.xml</li> <li>diff ccb062k.xml ccb062l.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062k.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062l.xml</li> <li>diff ccb062m.xml ccb062n.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062m.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062n.xml</li> </ol>

	<p>16. diff ccb062o.xml ccb062p.xml  17. validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062o.xml  18. validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t ccb062p.xml</p>
<p>Test Results</p>	<p>Step 1:</p> <pre> 93,96c93,96 &lt; &lt;test:wvnumber unit="m**-1"&gt;1.09&lt;/test:wvnumber&gt; &lt;!--good--&gt; &lt; &lt;test:sradiance unit="W*m**-2*sr**-1*um**-1"&gt;1.09&lt;/test:sradiance&gt; &lt;!--good--&gt; &lt; &lt;test:siradiance unit="W*m**-2*nm**-1"&gt;2.29&lt;/test:siradiance&gt; &lt;!--good--&gt; &lt; &lt;test:notvoltage unit="mA"&gt;2.29&lt;/test:notvoltage&gt; &lt;!--good--&gt; --- &gt; &lt;test:wvnumber unit="W*m**-2*sr**-1*um**-1"&gt;1.09&lt;/test:wvnumber&gt; &lt;!--bad--&gt; &gt; &lt;test:sradiance unit="W*m**\ *-2*sr**-1*um**-1"&gt;1.09&lt;/test:sradiance&gt; &lt;!--bad--&gt; &gt; &lt;test:siradiance unit="W*m**-2*nm*\ *-1"&gt;2.29&lt;/test:siradiance&gt; &lt;!--bad--&gt; &gt; &lt;test:notvoltage unit="mAxxxx"&gt;2.29&lt;/test:notvoltage&gt; &lt;!--bad--&gt; </pre> <p>Step 2: standard good message  Step 3: not sure how to get messages for deprecated units</p> <pre> PDS Validate Tool Report Configuration:   Version          1.5.0   Date             2014-09-18T22:17:56Z Parameters:   Targets          [file:/Users/rchen/Desktop/testScma1300/ccb062b.xml]   User Specified Schemas [PDS4_PDS_1300.xsd, PDS4_TEST_1300.xsd]   User Specified Schematrons [PDS4_PDS_1300.sch]   Severity Level    WARNING   Recurse Directories true Validation Details:   FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062b.xml   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, W/m**2/sr/Hz, W/m**2/sr/nm, W/m**2/sr/?m, W/m**3/sr, uW*cm**-2*sr**-1*um**-1, ?W/cm**2/sr/?m]'. 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, W/m**2/Hz, W/m**2/nm, W/m**3, uW*cm**-2*um**-1, ?W/cm**2/?m]'. 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'.   ERROR line 97, 42: cvc-enumeration-valid: Value 'mAxxxx' is not facet-valid with respect to enumeration '[A, mA]'. It must be a value from the enumeration.   ERROR line 97, 42: cvc-attribute.3: The value 'mAxxxx' of attribute 'unit' on element 'test:notvoltage' is not valid with respect to its type, 'Units_of_Current'. Summary:   1 of 1 file(s) processed, 0 skipped   0 of 1 file(s) passed validation End of Report </pre> <p>Step 4:</p> <pre> 42c42 &lt; &lt;unit_of_measure_type&gt;Units_of_Wavenumber&lt;/unit_of_measure_type&gt; --- &gt; &lt;unit_of_measure_type&gt;Units_of_WavenumberZZZ&lt;/unit_of_measure_type&gt; 56c56 &lt; &lt;unit_of_measure_type&gt;Units_of_Spectral_Radiance&lt;/unit_of_measure_type&gt; --- &gt; &lt;unit_of_measure_type&gt;Units_of_Spectral_RadianceZZZ&lt;/unit_of_measure_type&gt; 70c70 &lt; &lt;unit_of_measure_type&gt;Units_of_Spectral_Irradiance&lt;/unit_of_measure_type&gt; --- &gt; &lt;unit_of_measure_type&gt;Units_of_Spectral_IrradianceZZZ&lt;/unit_of_measure_type&gt; 84c84 &lt; &lt;unit_of_measure_type&gt;Units_of_Current&lt;/unit_of_measure_type&gt; --- &gt; &lt;unit_of_measure_type&gt;Units_of_CurrentZZZ&lt;/unit_of_measure_type&gt; </pre> <p>Step 5: This should be good, but .sch is missing Units_of_Current</p> <pre> PDS Validate Tool Report Configuration: </pre>

```

Version          1.5.0
Date            2014-09-17T21:35:07Z
Parameters:
  Targets       [file:/Users/rchen/Desktop/testScma1300/ccb062e.xml]
  User Specified Schemas [PDS4_PDS_1300.xsd]
  User Specified Schematrons [PDS4_PDS_1300.sch]
  Severity Level      WARNING
  Recurse Directories true
Validation Details:
  FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062e.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'][4]/*:DD_Value_Domain[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:unit_of_measure_type[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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)"]
Summary:
  1 of 1 file(s) processed, 0 skipped
  0 of 1 file(s) passed validation
End of Report

```

Step 6:

```

PDS Validate Tool Report
Configuration:
  Version          1.5.0
  Date            2014-09-17T21:36:19Z
Parameters:
  Targets       [file:/Users/rchen/Desktop/testScma1300/ccb062f.xml]
  User Specified Schemas [PDS4_PDS_1300.xsd]
  User Specified Schematrons [PDS4_PDS_1300.sch]
  Severity Level      WARNING
  Recurse Directories true
Validation Details:
  FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062f.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]/*:unit_of_measure_type[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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)"]
  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]/\*:unit\_of\_measure\_type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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')"]

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]/\*:unit\_of\_measure\_type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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')"]

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'][4]/\*:DD\_Value\_Domain[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/\*:unit\_of\_measure\_type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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')"]

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: standard good message

Step 9:

PDS Validate Tool Report  
Configuration:  
Version 1.5.0  
Date 2014-09-17T21:46:30Z  
Parameters:  
Targets [file:/Users/rchen/Desktop/testScma1300/ccb062j.xml]  
User Specified Schemas [PDS4\_PDS\_1300.xsd]  
User Specified Schematrons [PDS4\_PDS\_1300.sch]  
Severity Level WARNING  
Recurse Directories true  
Validation Details:

FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062j.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]/\*:unit\_of\_measure\_type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: " = ('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)"]

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: standard good message

Step 12:

PDS Validate Tool Report

Configuration:

Version 1.5.0

Date 2014-09-17T21:47:34Z

Parameters:

Targets [file:/Users/rchen/Desktop/testScma1300/ccb062l.xml]

User Specified Schemas [PDS4\_PDS\_1300.xsd]

User Specified Schematrons [PDS4\_PDS\_1300.sch]

Severity Level WARNING

Recurse Directories true

Validation Details:

FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062l.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]/\*:unit\_of\_measure\_type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: " = ('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)"]

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: standard good message
Step 15:
PDS Validate Tool Report
Configuration:
  Version      1.5.0
  Date        2014-09-17T21:48:36Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1300/ccb062n.xml]
  User Specified Schemas [PDS4_PDS_1300.xsd]
  User Specified Schematrons [PDS4_PDS_1300.sch]
  Severity Level      WARNING
  Recurse Directories true
Validation Details:
  FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062n.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]/*:unit_of_measure_type[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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)"]
Summary:
  1 of 1 file(s) processed, 0 skipped
  0 of 1 file(s) passed validation
End of Report
Step 16:
64c64
< <unit_of_measure_type>Units_of_Current</unit_of_measure_type>
---
> <unit_of_measure_type>Units_of_CurrentZZZ</unit_of_measure_type>
Step 17: should be the standard good message, but
Configuration:
  Version      1.5.0
  Date        2014-09-17T21:49:30Z
Parameters:
  Targets      [file:/Users/rchen/Desktop/testScma1300/ccb062o.xml]
  User Specified Schemas [PDS4_PDS_1300.xsd]
  User Specified Schematrons [PDS4_PDS_1300.sch]
  Severity Level      WARNING
  Recurse Directories true
Validation Details:
  FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062o.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]/*:unit_of_measure_type[namespace-
uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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',

```

	<p>'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')"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation</p> <p>Step 18:</p> <p>PDS Validate Tool Report Configuration: Version 1.5.0 Date 2014-09-17T21:50:25Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1300/ccb062p.xml] User Specified Schemas [PDS4_PDS_1300.xsd] User Specified Schematrons [PDS4_PDS_1300.sch] Severity Level WARNING Recurse Directories true</p> <p>Validation Details: FAIL: file:/Users/rchen/Desktop/testScma1300/ccb062p.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]/*:unit_of_measure_type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('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')"]</p> <p>Summary: 1 of 1 file(s) processed, 0 skipped 0 of 1 file(s) passed validation End of Report</p>
Comments	Must fix .sch to include Units_of_Current in all places
Date of Testing	2014.09.17
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB063, SCMA.CCB073
Description	Replace Document_Format_Set with Document_Edition; Add "Microsoft Excel" as a valid document_standard_id
Test Steps	1. Edit ccb073.xml and search for "Document_Edition", then "Microsoft Excel" 2. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb073.xml
Test Results	<p>Step 2:</p> <p>PDS Validate Tool Report Configuration: Version 1.5.0 Date 2014-09-17T23:19:41Z</p> <p>Parameters: Targets [file:/Users/rchen/Desktop/testScma1300/ccb073.xml] User Specified Schemas [PDS4_PDS_1300.xsd] User Specified Schematrons [PDS4_PDS_1300.sch] Severity Level WARNING Recurse Directories true</p>

	Validation Details: PASS: file:/Users/rchen/Desktop/testScma1300/ccb073.xml Summary: 1 of 1 file(s) processed, 0 skipped 1 of 1 file(s) passed validation End of Report
Comments	
Date of Testing	2014.09.17
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB067
Description	Change the base type of ASCII_Integer to xs:integer (from xs:int)
Test Steps	1. grep -A1 "name=.ASCII_Integer" PDS4_PDS_1300.xsd
Test Results	Step 1: <pre>&lt;xs:simpleType name="ASCII_Integer"&gt;   &lt;xs:restriction base="xs:integer"&gt;</pre>
Comments	
Date of Testing	2014.09.18
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB071
Description	Remove Special_Constants from .sch
Test Steps	1. grep Special_Constants PDS4_PDS_1300.sch
Test Results	Step 1: (no output)
Comments	
Date of Testing	2014.09.18
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB074
Description	Add values Product_Observational.Reference_List.Internal_Reference.reference_type = "data_to_derived_product" and "data_to_associate"
Test Steps	1. diff ccb074a.xml ccb074b.xml 2. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb074a.xml 3. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb074b.xml
Test Results	Step 1: <pre>51c51 &lt; &lt;reference_type&gt;data_to_derived_product&lt;/reference_type&gt; --- &gt; &lt;reference_type&gt;data_to_derived_productXXX&lt;/reference_type&gt; 55c55 &lt; &lt;reference_type&gt;data_to_associate&lt;/reference_type&gt; ---</pre>

	<pre> &gt; &lt;reference_type&gt;data_to_associateXXX&lt;/reference_type&gt; Step 2: normal good message Step 3: PDS Validate Tool Report Configuration:   Version      1.5.0   Date        2014-09-19T05:29:16Z Parameters:   Targets      [file:/Users/rchen/Desktop/testScma1300/ccb074b.xml]   User Specified Schemas [PDS4_PDS_1300.xsd]   User Specified Schematrons [PDS4_PDS_1300.sch]   Severity Level      WARNING   Recurse Directories true Validation Details:   FAIL: file:/Users/rchen/Desktop/testScma1300/ccb074b.xml   ERROR The attribute reference_type must be set to one of the following values 'data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data'. [Context: "/*:Product_Observational[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: "every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data')"]   ERROR The attribute reference_type must be set to one of the following values 'data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data'. [Context: "/*:Product_Observational[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: "every \$ref in (pds:reference_type) satisfies \$ref = ('data_to_associate', 'data_to_resource', 'data_to_calibration_document', 'data_to_calibration_product', 'data_to_raw_product', 'data_to_calibrated_product', 'data_to_derived_product', 'data_to_geometry', 'data_to_spice_kernel', 'data_to_thumbnail', 'data_to_document', 'data_curated_by_node', 'data_to_browse', 'data_to_ancillary_data')"] Summary:   1 of 1 file(s) processed, 0 skipped   0 of 1 file(s) passed validation End of Report </pre>
Comments	
Date of Testing	2014.09.18
Test Personnel	Richard Chen

Test Case ID	SCMA.CCB076
Description	Inventory/field_delimiter only takes lower-case values, not "Comma",...
Test Steps	<ol style="list-style-type: none"> <li>1. diff ccb076a.xml ccb076b.xml</li> <li>2. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb076a.xml</li> <li>3. validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t ccb076b.xml</li> </ol>
Test Results	<pre> Step 1: 34c34 &lt; &lt;field_delimiter&gt;Horizontal Tab&lt;/field_delimiter&gt; --- &gt; &lt;field_delimiter&gt;horizontal tab&lt;/field_delimiter&gt; Step 2: standard good message </pre>

	<p>Step 3:</p> <p>PDS Validate Tool Report  Configuration:  Version 1.5.0  Date 2014-09-18T15:48:17Z</p> <p>Parameters:  Targets [file:/Users/rchen/Desktop/testScma1300/ccb076b.xml]  User Specified Schemas [PDS4_PDS_1300.xsd]  User Specified Schematrons [PDS4_PDS_1300.sch]  Severity Level WARNING  Recurse Directories true</p> <p>Validation Details:  PASS: file:/Users/rchen/Desktop/testScma1300/ccb076b.xml  WARNING The value horizontal tab for attribute Inventory.field_delimiter is deprecated and should not be used. [Context: "/*:Product_Collection[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Inventory[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Inventory[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:field_delimiter != 'horizontal tab']"]</p> <p>Summary:  1 of 1 file(s) processed, 0 skipped  1 of 1 file(s) passed validation  End of Report</p>
Comments	
Date of Testing	2014.09.18
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"> <li>grep -n2 "Earth Based" rel1101n2b.xml</li> <li>grep -n1 "Earth Based" PDS4_PDS_1200.sch</li> <li>grep -n1 "Earth-based" PDS4_PDS_1200.sch</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t rel1101n2b.xml</li> <li>validate -x PDS4_PDS_1200.xsd -S PDS4_PDS_1200.sch -t rel1101n2c.xml</li> </ol>
Test Results	<p>Step 1: The offending label:</p> <pre> 36- &lt;Instrument_Host&gt; 37-   &lt;name&gt;VIKING LANDER 2&lt;/name&gt; 38-   &lt;type&gt;Earth Based&lt;/type&gt; 39-   &lt;naif_host_id&gt;VL2&lt;/naif_host_id&gt; 40-   &lt;description&gt;chop&lt;/description&gt; </pre> <p>Step 2: The rule that says "Earth Based" is a warning</p> <pre> 429- &lt;sch:rule context="pds:Instrument_Host" role="warning"&gt; 430-   &lt;sch:assert test="pds:type != 'Earth Based'"&gt; 431-     The value Earth Based for attribute Instrument_Host.type is deprecated and should not be used.&lt;/sch:assert&gt; 432- &lt;/sch:rule&gt; </pre> <p>Step 3: The rule allowing only "Earth-based", "Lander", ... Default is error.</p> <pre> PDS4_PDS_1200.sch:423- &lt;sch:rule context="pds:Instrument_Host"&gt; PDS4_PDS_1200.sch:424:   &lt;sch:assert test="if (pds:type) then pds:type = ('Earth-based', 'Lander', 'Rover', 'Spacecraft') else true()"&gt; PDS4_PDS_1200.sch:425:     The attribute pds:type must be equal to one of the following values 'Earth- based', 'Lander', 'Rover', 'Spacecraft'.&lt;/sch:assert&gt; PDS4_PDS_1200.sch:426- &lt;/sch:rule&gt; </pre> <p>Step 4: Validate flags an error and a warning on the offending label.</p> <p>PDS Validate Tool Report</p>

Configuration:

Version 1.4.1  
Date 2013-12-03T00:04:51Z

Parameters:

Targets [file:/Users/rchen/Desktop/testing/testScma1101/rel1101n2b.xml]  
User Specified Schemas [PDS4\_PDS\_1200.xsd]  
User Specified Schematrons [PDS4\_PDS\_1200.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\_1200.xsd]  
User Specified Schematrons [PDS4\_PDS\_1200.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-

	<pre>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</pre>
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"> <li>diff rel1101n6a.xml rel1101n6b.xml</li> <li>grep reference_type rel1101n6a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1101n6a.xml</li> <li>validate -S PDS4_PDS_1100.sch -x PDS4_PDS_1100.xsd -t rel1101n6b.xml</li> </ol>
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 &lt; &lt;?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1200.sch"?&gt; --- &gt; &lt;?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.sch"?&gt; 8c8 &lt; xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1200.xsd"&gt; --- &gt; xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.xsd"&gt; 15c15 &lt; &lt;information_model_version&gt;1.1.0.1&lt;/information_model_version&gt; --- &gt; &lt;information_model_version&gt;1.1.0.0&lt;/information_model_version&gt;</pre> <p>Step 2: both labels have the bad value, the first reference_type</p> <pre>&lt;reference_type&gt;data_to_XXXXXXYY&lt;/reference_type&gt; &lt;reference_type&gt;is_instrument_host&lt;/reference_type&gt; &lt;reference_type&gt;data_to_target&lt;/reference_type&gt;</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_1200.xsd]   User Specified Schematrons [PDS4_PDS_1200.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')"]</pre>

	<p>Summary:  1 of 1 file(s) processed, 0 skipped  0 of 1 file(s) passed validation  End of Report</p> <p><b>Step 4: old schematron has no error though it should</b></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"> <li>diff rel1101n7a.xml rel1101n7b.xml</li> <li>grep reference_type rel1101n7a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1101n7a.xml</li> <li>validate -S PDS4_PDS_1100.sch -x PDS4_PDS_1100.xsd -t rel1101n7b.xml</li> </ol>
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 &lt; ?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1200.sch"?&gt; --- &gt; ?xml-model href="http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.sch"?&gt; 8c8 &lt; xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1200.xsd"&gt; --- &gt; xsi:schemaLocation="http://pds.nasa.gov/pds4/pds/v1 http://pds.nasa.gov/pds4/schema/released/pds/v1/PDS4_PDS_1100.xsd"&gt; 15c15 &lt; &lt;information_model_version&gt;1.1.0.1&lt;/information_model_version&gt; --- &gt; &lt;information_model_version&gt;1.1.0.0&lt;/information_model_version&gt; </pre> <p>Step 2: both labels have the new value, the third reference_type</p> <pre> &lt;reference_type&gt;data_to_investigation&lt;/reference_type&gt; &lt;reference_type&gt;is_instrument_host&lt;/reference_type&gt; &lt;reference_type&gt;document_to_target&lt;/reference_type&gt; </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_1200.xsd]</p>



	<p>User Specified Schematrons [PDS4_PDS_1200.sch]  Severity Level Warnings  Recurse Directories true  Validation Details:  PASS: file:/Users/rchen/Desktop/testScma1101a/rel1101n7a.xml  Summary:  1 of 1 file(s) processed, 0 skipped  1 of 1 file(s) passed validation  End of Report</p> <p><b>Step 4: old schematron rejects value document_to_target</b>  PDS Validate Tool Report  Configuration:  Version 1.4.0  Date 2013-11-22T11:15:32Z  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  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)"]]  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.REL1200N01
Description	Array_2D_Image requires axes "Sample" and "Line"; attribute "unit" must = "byte"
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n01a.xml rel1200n01b.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t rel1200n01a.xml</li> <li>validate -S PDS4_PDS_1300.sch -x PDS4_PDS_1300.xsd -t rel1200n01b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 87c87 &lt; &lt;file_size unit="byte"&gt;126976&lt;/file_size&gt; --- &gt; &lt;file_size unit="bytes"&gt;126976&lt;/file_size&gt; &lt;!-- now "byte" --&gt; 109c109 &lt; &lt;axis_name&gt;Line&lt;/axis_name&gt; --- &gt; &lt;axis_name&gt;Rine&lt;/axis_name&gt; &lt;!-- should be Line --&gt; </pre> <p>Step 2: good</p> <p>Step 3: FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n01b.xml</p>

	<p>ERROR The names of the first and second axis of an Array_2D_Image must be set to Line and Sample. [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_Image[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:Axis_Array[1]/pds:axis_name = ('Line') and pds:Axis_Array[2]/pds:axis_name = ('Sample') or pds:Axis_Array[1]/pds:axis_name = ('Sample') and pds:Axis_Array[2]/pds:axis_name = ('Line')"]</p> <p>ERROR The name of the first axis of an Array_2D_Image must be set to either Line or Sample. [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_Image[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:axis_name = ('Line', 'Sample')"]</p> <p>ERROR The attribute @unit must be equal to the value 'byte'. [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]/*:File[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:file_size[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N02
Description	record_delimiter wants Carriage-Return Line-Feed, not carriage-return line-feed
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n02a.xml rel1200n02b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n02a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n02b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 154c154 &lt; &lt;record_delimiter&gt;Carriage-Return Line-Feed&lt;/record_delimiter&gt; --- &gt; &lt;record_delimiter&gt;carriage-return line-feed&lt;/record_delimiter&gt; 157c157 &lt; &lt;fields&gt;10&lt;/fields&gt; --- &gt; &lt;fields&gt;0&lt;/fields&gt; </pre> <p>Step 2: good</p> <p>Step 3: FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n02b.xml  ERROR The values for 'fields' and 'groups' must not both be '0'. The number of fields found: (0). The number of groups found: (0). [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]/*:Table_Character[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Character[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "\$num_fields &gt; '0' or \$num_groups &gt; '0'"]  ERROR The attribute pds:record_delimiter must be equal to one of the following values 'Carriage-Return Line-Feed'. [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]/*:Table_Character[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:record_delimiter) then pds:record_delimiter = ('Carriage-Return Line-Feed') else true()"]  WARNING The value carriage-return line-feed for attribute Table_Character.record_delimiter 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]/*:Table_Character[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:record_delimiter != 'carriage-return line-feed'"]</p>

Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N03
Description	field_delimiter wants "Comma", not "comma"
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n03a.xml rel1200n03b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n03a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n03b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 156c156 &lt; &lt;field_delimiter&gt;Comma&lt;/field_delimiter&gt; --- &gt; &lt;field_delimiter&gt;comma&lt;/field_delimiter&gt; </pre> <p>Step 2: good</p> <p>Step 3:  FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n03b.xml  ERROR The attribute pds:field_delimiter must be equal to one of the following values 'Comma', 'Horizontal Tab', 'Semicolon', 'Vertical Bar'. [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]/*:Table_Delimited[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:field_delimiter) then pds:field_delimiter = ('Comma', 'Horizontal Tab', 'Semicolon', 'Vertical Bar') else true()"]  WARNING The value comma for attribute Table_Delimited.field_delimiter 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]/*:Table_Delimited[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:field_delimiter != 'comma'"]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N10
Description	Remove error for no Band_Bin_Set. See warnings for Band_Bin_Set, Band_Bin, Band_Bin/band_width, Band_Bin/center_wavelength
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n10a.xml rel1200n10b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n10a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n10b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 123c123 &lt; &lt;!--Band_Bin_Set&gt; --- &gt; &lt;Band_Bin_Set&gt; 129c129 &lt; &lt;/Band_Bin_Set--&gt; --- &gt; &lt;/Band_Bin_Set&gt; </pre>

	<p>Step 2: this formerly was an (probably incorrect) error for missing Band_Bin_Set good</p> <p>Step 3:</p> <pre> FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n10b.xml WARNING pds:Band_Bin 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_3D_Spectrum[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][3]/*:Band_Bin_Set[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Band_Bin[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Band_Bin'" ERROR The attribute @unit must be equal to one of the following values 'AU', 'Angstrom', 'cm', 'km', 'm', 'micrometer', 'mm', 'nm'. [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_3D_Spectrum[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][3]/*:Band_Bin_Set[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Band_Bin[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:band_width[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('AU', 'Angstrom', 'cm', 'km', 'm', 'micrometer', 'mm', 'nm)'" ERROR The attribute @unit must be equal to one of the following values 'AU', 'Angstrom', 'cm', 'km', 'm', 'micrometer', 'mm', 'nm'. [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_3D_Spectrum[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][3]/*:Band_Bin_Set[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Band_Bin[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:center_wavelength[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('AU', 'Angstrom', 'cm', 'km', 'm', 'micrometer', 'mm', 'nm)'" WARNING pds:Band_Bin_Set 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_3D_Spectrum[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Axis_Array[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][3]/*:Band_Bin_Set[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Band_Bin_Set'" </pre>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N11
Description	"carriage-return line-feed" deprecated in Checksum_Manifest. Corrected error message to say "greater than 0" instead of "greater than 1" for Citation_Information/description
Test Steps	<ol style="list-style-type: none"> <li>1. diff rel1200n11a.xml rel1200n11b.xml</li> <li>2. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n11a.xml</li> <li>3. validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n11b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 20c20 &lt; &lt;description&gt;x&lt;/description&gt; --- &gt; &lt;description&gt;&lt;/description&gt; 41c41 &lt; &lt;record_delimiter&gt;Carriage-Return Line-Feed&lt;/record_delimiter&gt; --- &gt; &lt;record_delimiter&gt;carriage-return line-feed&lt;/record_delimiter&gt; </pre>

	<p>Step 2: good</p> <p>Step 3:  FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n11b.xml  ERROR line 20, 34: cvc-minLength-valid: Value " with length = '0' is not facet-valid with respect to minLength '1' for type 'description'.  ERROR line 20, 34: cvc-type.3.1.3: The value " of element 'description' is not valid.  ERROR The attribute pds:record_delimiter must be equal to one of the following values 'Carriage-Return Line-Feed'. [Context: "/*:Product_DIP[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Information_Package_Component[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Checksum_Manifest[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Checksum_Manifest[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:record_delimiter) then pds:record_delimiter = ('Carriage-Return Line-Feed') else true()"]  WARNING The value carriage-return line-feed for attribute Checksum_Manifest.record_delimiter is deprecated and should not be used. [Context: "/*:Product_DIP[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Information_Package_Component[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Checksum_Manifest[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Checksum_Manifest[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:record_delimiter != 'carriage-return line-feed'"]  ERROR The description in Citation_Information must be greater than 0 and less than 5000 bytes (not counting spaces). [Context: "/*:Product_DIP[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Identification_Area[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Citation_Information[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:description[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "string-length(translate(.,', ')) &gt;= 1 and string-length(translate(.,', ')) &lt;= 5000"]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N12
Description	Deprecate DD_Association/reference_type = "restriction_of" and DD_Association_External. Add rule for DD_Rule_Statement/rule_type
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n12a.xml rel1200n12b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n12a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n12b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 40c40 &lt; &lt;reference_type&gt;attribute_of&lt;/reference_type&gt; --- &gt; &lt;reference_type&gt;restriction_of&lt;/reference_type&gt; 44c44 &lt; &lt;!--DD_Association_External&gt; --- &gt; &lt;DD_Association_External&gt; 50c50 &lt; &lt;/DD_Association_External--&gt; --- &gt; &lt;/DD_Association_External&gt; 69c69 &lt; &lt;rule_type&gt;Assert&lt;/rule_type&gt; --- &gt; &lt;rule_type&gt;badValue&lt;/rule_type&gt; </pre> <p>Step 2: good</p> <p>Step 3:  FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n12b.xml  ERROR The attribute pds:reference_type must be equal to one of the following values 'attribute_of',</p>

	<pre>'component_of', 'parent_of'. [Context: "/*:Ingest_LDD[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Class[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Association[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:reference_type) then pds:reference_type = (attribute_of, 'component_of', 'parent_of') else true()"] WARNING The value restriction_of for attribute DD_Association.reference_type is deprecated and should not be used. [Context: "/*:Ingest_LDD[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Class[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Association[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:reference_type != 'restriction_of'"] WARNING pds:DD_Association_External is deprecated and should not be used. [Context: "/*:Ingest_LDD[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Class[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Association_External[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:DD_Association_External'"] ERROR The attribute pds:rule_type must be equal to one of the following values 'Assert', 'Assert Every', 'Assert If', 'Report'. [Context: "/*:Ingest_LDD[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Rule[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:DD_Rule_Statement[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:rule_type) then pds:rule_type = ('Assert', 'Assert Every', 'Assert If', 'Report') else true()"]</pre>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N13
Description	Deprecate Data_Set_PDS3/start_date_time and stop_date_time
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n13a.xml rel1200n13b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n13a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n13b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre>45,46c45,46 &lt; &lt;!--start_date_time&gt;1994Z&lt;/start_date_time--&gt; &lt; &lt;!--stop_date_time nilReason="unknown" xsi:nil="true"&gt;&lt;/stop_date_time--&gt; --- &gt; &lt;start_date_time&gt;1994Z&lt;/start_date_time&gt; &gt; &lt;stop_date_time nilReason="unknown" xsi:nil="true"&gt;&lt;/stop_date_time&gt;</pre> <p>Step 2: good</p> <p>Step 3:</p> <pre>PASS: file:/Users/rchen/Desktop/testScma1200b/rel1200n13b.xml WARNING pds:Data_Set_PDS3/pds:start_date_time is deprecated and should not be used. [Context: "/*:Product_Data_Set_PDS3[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Data_Set_PDS3[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:start_date_time[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Data_Set_PDS3/pds:start_date_time'"] WARNING pds:Data_Set_PDS3/pds:stop_date_time is deprecated and should not be used. [Context: "/*:Product_Data_Set_PDS3[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Data_Set_PDS3[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:stop_date_time[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Data_Set_PDS3/pds:stop_date_time'"]</pre>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N14 – obsoleted by removal of Document_Format in v1300
Description	
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n14a.xml rel1200n14b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n14a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n14b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 61c61 &lt; &lt;format_type&gt;Single File&lt;/format_type&gt; --- &gt; &lt;format_type&gt;single file&lt;/format_type&gt; </pre> <p>Step 2:</p> <p>good</p> <p>Step 3:</p> <pre> FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n14a.xml ... </pre>
Comments	
Date of Testing	
Test Personnel	

Test Case ID	SCMA.REL1200N15
Description	<p>Deprecate Encoded_Binary/encoding_standard_id = 'CCSDS Communications Protocols'.</p> <p>Require Encoded_Byte_Stream/object_length's unit = 'byte'.</p> <p>Require Encoded_Byte_Stream/offset's unit = 'byte'.</p>
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n15a.xml rel1200n15b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n15a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n15b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 69c69 &lt; &lt;encoding_standard_id&gt;CCSDS Space Communications Protocols&lt;/encoding_standard_id&gt; --- &gt; &lt;encoding_standard_id&gt;CCSDS Communications Protocols&lt;/encoding_standard_id&gt; 72,73c72,73 &lt; &lt;offset unit="byte"&gt;888&lt;/offset&gt; &lt; &lt;object_length unit="byte"&gt;888888&lt;/object_length&gt; --- &gt; &lt;offset unit="notAnythingGoes"&gt;888&lt;/offset&gt; &gt; &lt;object_length unit="notAnythingGoes"&gt;888888&lt;/object_length&gt; </pre> <p>Step 2:</p> <p>good</p> <p>Step 3:</p> <pre> FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n15b.xml ERROR The attribute pds:encoding_standard_id must be equal to the value 'CCSDS Space Communications Protocols'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational_Supplemental[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Encoded_Binary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:encoding_standard_id) then pds:encoding_standard_id = ('CCSDS Space Communications Protocols') else true()"] WARNING The value CCSDS Communications Protocols for attribute Encoded_Binary.encoding_standard_id is deprecated and should not be used. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational_Supplemental[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Encoded_Binary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:encoding_standard_id != 'CCSDS Communications </pre>

	<p>Protocols"]</p> <p>ERROR The attribute @unit must be equal to one of the following values 'byte'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational_Supplemental[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Encoded_Byte_Stream[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:object_length[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"]</p> <p>ERROR The attribute @unit must be equal to one of the following values 'byte'. [Context: "/*:Product_Observational[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:File_Area_Observational_Supplemental[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Encoded_Byte_Stream[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:offset[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N16
Description	These must have unit='byte': Group_Field_Character/group_location, Group_Field_Character/group_length, Group_Field_Binary/group_location, Group_Field_Binary/group_length, Record_Binary/record_length, Record_Character/record_length,
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n16a.xml rel1200n16b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n16a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n16b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 60c60 &lt; &lt;record_length unit='byte'&gt;888&lt;/record_length&gt; --- &gt; &lt;record_length unit='notAnythingGoes'&gt;888&lt;/record_length&gt; 65,66c65,66 &lt; &lt;group_location unit='byte'&gt;4&lt;/group_location&gt; &lt; &lt;group_length unit='byte'&gt;4&lt;/group_length&gt; --- &gt; &lt;group_location unit='notAnythingGoes'&gt;4&lt;/group_location&gt; &gt; &lt;group_length unit='notAnythingGoes'&gt;4&lt;/group_length&gt; 82c82 &lt; &lt;record_length unit='byte'&gt;888&lt;/record_length&gt; --- &gt; &lt;record_length unit='notAnythingGoes'&gt;888&lt;/record_length&gt; 87,88c87,88 &lt; &lt;group_location unit='byte'&gt;8&lt;/group_location&gt; &lt; &lt;group_length unit='byte'&gt;8&lt;/group_length&gt; --- &gt; &lt;group_location unit='notAnythingGoes'&gt;8&lt;/group_location&gt; &gt; &lt;group_length unit='notAnythingGoes'&gt;8&lt;/group_length&gt; </pre> <p>Step 2: good</p> <p>Step 3: FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n16b.xml ERROR The attribute @unit must be equal to one of the following values 'byte'. [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]/*:Table_Binary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Binary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Group_Field_Binary[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:group_length[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"]</p> <p>ERROR The attribute @unit must be equal to one of the following values 'byte'. [Context:</p>



	<pre> "/*: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]/*:Table_Binary[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Binary[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Group_Field_Binary[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:group_location[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"] ERROR The attribute @unit must be equal to one of the following values 'byte'. [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]/*:Table_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Group_Field_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:group_length[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"] ERROR The attribute @unit must be equal to one of the following values 'byte'. [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]/*:Table_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Group_Field_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:group_location[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"] ERROR The attribute @unit must be equal to one of the following values 'byte'. [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]/*:Table_Binary[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Binary[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:record_length[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"] ERROR The attribute @unit must be equal to one of the following values 'byte'. [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]/*:Table_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Record_Character[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:record_length[namespace- uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "@unit = ('byte')"] </pre>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N17
Description	Deprecated instrument types
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n17a.xml rel1200n17b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n17a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n17b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 224,31c24,29 &lt; &lt;type&gt;Camera&lt;/type&gt; &lt; &lt;type&gt;Thermal Probe&lt;/type&gt; &lt;!-- was combined --&gt; &lt; &lt;type&gt;Electrical Probe&lt;/type&gt; &lt;!-- was combined --&gt; &lt; &lt;type&gt;X-ray Diffraction Spectrometer&lt;/type&gt; &lt; &lt;type&gt;Alpha Particle X-Ray Spectrometer&lt;/type&gt; &lt; &lt;type&gt;X-ray Fluorescence Spectrometer&lt;/type&gt; &lt; &lt;type&gt;Grinding Tool&lt;/type&gt; &lt;!-- was combined --&gt; &lt; &lt;type&gt;Drilling Tool&lt;/type&gt; &lt;!-- was combined --&gt; --- &gt; &lt;!--type&gt;Camera&lt;/type--&gt; &gt; &lt;type&gt;Thermal And Electrical Conductivity Probe&lt;/type&gt; </pre>

	<pre> &gt; &lt;type&gt;X-ray Defraction Spectrometer&lt;/type&gt; &gt; &lt;type&gt;Alpha Particle Xray Spectrometer&lt;/type&gt; &gt; &lt;type&gt;X-ray Fluorescence&lt;/type&gt; &gt; &lt;type&gt;Grinding And Drilling Tool&lt;/type&gt; </pre> <p>Step 2: good</p> <p>Step 3: FAIL: file:/Users/rchen/Desktop/testScma1300/rel1200n17b.xml ERROR The attribute pds:type must be equal to one of the following values 'Accelerometer', 'Alpha Particle Detector', 'Alpha Particle X-Ray Spectrometer', 'Altimeter', 'Anemometer', 'Atomic Force Microscope', 'Barometer', 'Biology Experiments', 'Bolometer', 'Camera', 'Cosmic Ray Detector', 'Drilling Tool', 'Dust Detector', 'Electrical Probe', 'Energetic Particle Detector', 'Gamma Ray Detector', 'Gas Analyzer', 'Grinding 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 Imager', 'Thermal Probe', 'Thermometer', 'Ultraviolet Spectrometer', 'Wet Chemistry Laboratory', 'X-ray Detector', 'X-ray Diffraction Spectrometer', '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]/*:type[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: ". = ('Accelerometer', 'Alpha Particle Detector', 'Alpha Particle X-Ray Spectrometer', 'Altimeter', 'Anemometer', 'Atomic Force Microscope', 'Barometer', 'Biology Experiments', 'Bolometer', 'Camera', 'Cosmic Ray Detector', 'Drilling Tool', 'Dust Detector', 'Electrical Probe', 'Energetic Particle Detector', 'Gamma Ray Detector', 'Gas Analyzer', 'Grinding 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 Imager', 'Thermal Probe', 'Thermometer', 'Ultraviolet Spectrometer', 'Wet Chemistry Laboratory', 'X-ray Detector', 'X-ray Diffraction Spectrometer', 'X-ray Fluorescence Spectrometer')"] [snip... repeated 4 more times]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.12
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N18
Description	Deprecate pds:Instrument_Host/type = 'Earth Based', Instrument_Host/version_id
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n18a.xml rel1200n18b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n18a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n18b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 38,39c38,39 &lt; &lt;!--version_id&gt;9999.999&lt;/version_id--&gt; &lt; &lt;type&gt;Earth-based&lt;/type&gt; --- &gt; &lt;version_id&gt;9999.999&lt;/version_id&gt; &gt; &lt;type&gt;Earth Based&lt;/type&gt; </pre> <p>Step 2: good</p> <p>Step 3: FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n18b.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</p>

	<p>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'"]</p> <p>WARNING pds:Instrument_Host/pds:version_id 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]/*:version_id[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "name() = 'pds:Instrument_Host/pds:version_id'"]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.08
Test Personnel	Richard Chen

Test Case ID	SCMA.REL1200N19
Description	
Test Steps	<ol style="list-style-type: none"> <li>diff rel1200n19a.xml rel1200n19b.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n19a.xml</li> <li>validate -S PDS4_PDS_1200.sch -x PDS4_PDS_1200.xsd -t rel1200n19b.xml</li> </ol>
Test Results	<p>Step 1:</p> <pre> 39c39 &lt; &lt;coordinate_source&gt;Astronomical&lt;/coordinate_source&gt; --- &gt; &lt;coordinate_source&gt;Geodetic - Potsdam datum&lt;/coordinate_source&gt; </pre> <p>Step 2: good</p> <p>Step 3:  FAIL: file:/Users/rchen/Desktop/testScma1200b/rel1200n19b.xml  ERROR The attribute pds:coordinate_source must be equal to one of the following values 'Aerial Survey - North American (1983) Datum', 'Astronomical', 'Doppler determined - WGS 72 Datum', 'Geodetic - Adindan Datum', 'Geodetic - Australian Datum', 'Geodetic - Campo Inchauspe (Argentina) Datum', 'Geodetic - Cape (South Africa) Datum', 'Geodetic - Corregio Alegre (Brazil) Datum', 'Geodetic - Datum Unknown', 'Geodetic - European 1979 Datum', 'Geodetic - European Datum', 'Geodetic - GRS 80 Datum', 'Geodetic - Hermannskogel Datum', 'Geodetic - Indian Datum', 'Geodetic - La Canoa (Venezuela) Datum', 'Geodetic - New Zealand Datum', 'Geodetic - North American (1927) Datum', 'Geodetic - Old Hawaiian Datum', 'Geodetic - Ordnance Survey of Great Britain (1936) Datum', 'Geodetic - Ordnance Survey of Great Britain (SN) 1980 Datum', 'Geodetic - Potsdam Datum', 'Geodetic - Puerto Rican (1940) Datum', 'Geodetic - South American Datum', 'Geodetic - Tokyo Datum', 'Geodetic - WGS 84 Datum', 'Satellite Determined - Datum Unknown', 'Unknown'.  [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Telescope[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "if (pds:coordinate_source) then pds:coordinate_source = ('Aerial Survey - North American (1983) Datum', 'Astronomical', 'Doppler determined - WGS 72 Datum', 'Geodetic - Adindan Datum', 'Geodetic - Australian Datum', 'Geodetic - Campo Inchauspe (Argentina) Datum', 'Geodetic - Cape (South Africa) Datum', 'Geodetic - Corregio Alegre (Brazil) Datum', 'Geodetic - Datum Unknown', 'Geodetic - European 1979 Datum', 'Geodetic - European Datum', 'Geodetic - GRS 80 Datum', 'Geodetic - Hermannskogel Datum', 'Geodetic - Indian Datum', 'Geodetic - La Canoa (Venezuela) Datum', 'Geodetic - New Zealand Datum', 'Geodetic - North American (1927) Datum', 'Geodetic - Old Hawaiian Datum', 'Geodetic - Ordnance Survey of Great Britain (1936) Datum', 'Geodetic - Ordnance Survey of Great Britain (SN) 1980 Datum', 'Geodetic - Potsdam Datum', 'Geodetic - Puerto Rican (1940) Datum', 'Geodetic - South American Datum', 'Geodetic - Tokyo Datum', 'Geodetic - WGS 84 Datum', 'Satellite Determined - Datum Unknown', 'Unknown') else true()"]</p> <p>WARNING The value Geodetic - Potsdam datum for attribute Telescope.coordinate_source is deprecated and should not be used. [Context: "/*:Product_Context[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]/*:Telescope[namespace-uri()='http://pds.nasa.gov/pds4/pds/v1'][1]"; Test: "pds:coordinate_source != 'Geodetic - Potsdam datum'"]</p>
Comments	Results met success criteria.
Date of Testing	2014.09.08

Test Personnel	Richard Chen
----------------	--------------