From: Debra Kazden <dkazden@igpp.ucla.edu>

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To: pds4ddwg

Subject:Version 2 - Notes from PDS DDWG 2016-10-13

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October 13, 2016

Notes by Debra Kazden

Version 2 - October 20, 2016

~ These Version 2 notes include an additional question to clarify what the DN's said about if they were interested in receiving email from Lev on the topic of ASCII real being constrained.

Known Attendees:

R. Alanis, M. Gordon, E. Guinness, L. Huber, C. Isbell, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, L. Nagdimunov, B. Semenov and J. Stone

Meeting Agenda and Summary

1) SCRs Under Discussion:

-- CCB-131: Missing constraint on Special Constants attributes (A.Raugh)

        -- 20150922: Open

        -- 20160223: under DDWG discussion

-- 20160929: back to DDWG to form WG; candidate for sunset clause

(Discussed)

-- CCB-138: Mismatch between context object types and values of type in Observing System Component class (A.Raugh)

-- 20151202: Open; under DDWG review

-- 20151203: WG: Anne, Steve, Dick, Jordan, and RJ

-- 20160310: until someone volunteers to lead the effort -- on hold

-- 20160929: back to DDWG to form WG; candidate for sunset clause

(Will be Discussed in December)

-- CCB-142: Create Data Quality Flags to hold metadata on Quality Flags (E.Shaya)

-- 20151229: Open;

-- 20160126: Under DDWG review

-- 20160322: Ed didn't like Simpson's CCB-142 implementation

-- Ed wants a lot of specifics embedded into XML

-- Simpson trying to figure out how to make it 'simpler'

-- 20160323: Simpson generated presentation for DDWG review / comment

-- tabled until next session (20160410)

-- 20160428: updates discussed by DDWG

-- requires IMG & others expertise to carry forward

-- 20160505: discussed by DDWG; E.Shaya led discussion; 2 competing implementations

-- address 2 issues:

-- bang for buck in terms of worth doing

-- implementation recommendation

-- WG: Steve, Anne, Jordan & Chris, Lev

-- 20160808: Packed Data issue presented / discussed at MC

-- pending MC decision

-- A.Raugh & R.Simpson to resolve and propose solution

(Not Discussed)

-- CCB-149: Should PDS4 allow packed data? (E.Shaya)

-- 20160309: Open & Under DDWG review

-- 20160310: Sent email to E.Shaya asking that he upload his version of the IM for packet data to JIRA

    -- DDWG will review and provide comments

    -- PPI has volunteered to attempt to convert a PDS3 product using the Packed_Data class

-- 20160322: dependency on CCB-153; and vice-versa

-- 20160428: sent email to J.Mafi for status on providing examples

-- 20160706: sent email to J.Mafi for status on providing examples

-- 20160808: Packed_Data issue presented / discussed at MC

    -- pending MC decision

    -- A.Raugh & R.Simpson to resolve and propose solution

  (Not Discussed)

-- CCB-151: Bundle Member Entry and Internal Reference do not require either LID or LIDVID. (A.Raugh)

  -- 20160309: Open & Under DDWG review

  -- 20160928: sent email to Anne asking if this SCR is a non-issue

      -- enclosed snippet from XSD where CHOICE statement is used to require LID | LIDVID

  (Brief update - was withdrawn by author)

-- CCB-153: SR Needs Additional Description of Packed Data Fields. (E.Shaya)

  -- 20160321: Open

  -- 20160322: dependency on CCB-149; and vice-versa

  -- 20160804: DDWG voted to send this to MC for discussion and possibly vote to either allow or

disallow packed-data in archive

  --Votes from 20160804 DDWG:

   – vote to raise the question to MC should packed-data be supported in archive data (e.g., Product

Observational)

    ATMOS - yes

    EN   - no

    IMG   - no

    GEO   - yes

    PPI   - yes

NAIF - not present

SBN   - yes

RS   - yes

RINGS - endorse (via email) - not present

IPDA - not present

-- 20160808: Packed Data issue presented / discussed at MC

-- pending MC decision

-- A.Raugh & R.Simpson to resolve and propose solution

(Not Discussed)

-- CCB-156: Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al. (A.Raugh)

-- 20160418: Open

-- 20160623: Under DDWG review

-- 20160818: Will address "exposure rules" at Tech Session; A.Raugh will put together PPT

-- e.g., LDD shall reference element and not type

-- 20160824: email to A.Raugh; addressing "exposure rules" at Tech Session -- was turned down

-- need alternate suggestion as how to proceed with resolving issues in SCR

-- 20160901: discussion with A.Raugh; how to push SCR forward

-- Anne to contact Steve to use <id> and <ref id> in XSD over schematron

(Not Discussed)

-- CCB-162: Move <md5 checksum> from Object Statistics to Array (R.Simpson)

-- 20160622: Open & Under DDWG review

-- emailed Steve to TA

-- 20160629: TA'd; back to DDWG for discussion

-- 20160630: C.Isbell & Jordan & Dick to resolve issue(s); then back to DDWG

-- 20160829: email from R.Simpson with suggested implementation

-- back to DDWG for discussion

(Discussed - voted to have it in byte stream, still need to update the SCR)

-- CCB-164: Display Settings not required for images (A.Raugh)

-- 20160707: Open

-- 20160727: Under DDWG discussion

-- 20160818: Under DDWG discussion

-- A.Raugh to 'move' comments to body of the SCR -- ready for TA & vote ?

-- 20160829: email from R.Simpson to Jordan with suggested implementation

of promoting classes (e.g., Display Settings) in DISP LDD to common IM

(Might be Discussed in December)

-- CCB-166: Deprecate bit mask from IM for new sample bits attribute (J.Padams)

-- 20160901: Open & Under DDWG review

-- See comments from R.Simpson & Lev

-- 20160829: email from R.Simpson to Jordan on suggested changes

-- Jordan replied that the suggested changes are outside the scope of 166

(On Hold until Jordan is present)

-- CCB-167: Remove xmlns:pds recommendation from DPH (L.Nagdimunov)

-- 20160906: Discussed with Sean & Steve; Sean s/w team will ascertain impacts on removing 'pds' as namespace from XML labels

-- on leave until end of Sept.

(Not Discussed)

-- CCB-168: ASCII NonNegative Integer may or may not include + sign? (L.Nagdimunov)

(Not Discussed)

Notice sent before the telecon in email from R. Joyner - October 12, 2016 See enclosures:

-- a list of the full topics under discussion by the DDWG

CCB/SCR Statuses:

-- CCB-164: Display Settings not required for images (A.Raugh)

-- 20160915: DDWG -- put this SCR on hold

-- CCB-138: Mismatch between context object types and values of <type> in <Observing System

Component> class (A.Raugh)

-- 20160929: back to DDWG to form WG

   -- on hold; not high priority; too few people resources

   -- bring back to DDWG: Dec 2016

This week's agenda will focus on the following topics:

(1) Please review and be prepared to discuss and possibly vote:

-- CCB-166: Deprecate bit mask from IM for new sample bits attribute (J.Padams) - please review SCR as
has been updated

   -- 20160901: Open & Under DDWG review

      -- See comments from R.Simpson & Lev

      -- 20160829: email from R.Simpson to Jordan on suggested changes

      -- 20160908: many emails between Jordan, R.Simpson, and Lev

-- CCB-162: Move <md5 checksum> from Object Statistics to Tagged Digital Object (R.Simpson) -- please
review email from Steve on suggested implementation

   -- 20160622: Open & Under DDWG review

      -- emailed Steve to TA

   -- 20160629: TA'd; back to DDWG for discussion

   -- 20160630: C.Isbell & Jordan & Dick to resolve issue(s); then back to DDWG

   -- 20160706: email to C.Isbell & Jordan & Dick asking if issues within WG are settled

   -- 20160804: email to Jordan asking about status / progress

   -- 20160829: email from R.Simpson with suggested implementation

      -- back to DDWG for discussion

   -- 20160901: R.Simpson retitled & rewrote SCR

   -- 20160915: Steve TA'd; but TA has lien

      -- Steve & Simpson to resolve

      -- Steve to generate two implementations & present to DDWG for discussion

   -- 20160929: Steve provided the two implementations to DDWG (for review / comment)

-- discussion postponed because provided too late for review by the team

-- CCB-131: Missing constraint on Special Constants attributes (A.Raugh)

  -- 20150922: Open; under DDWG discussion

  -- 20160310: until someone volunteers to lead the effort -- on hold

  -- 20160929: back to DDWG to form WG; candidate for sunset clause

  -- 20161010: from Anne: Jess Stone (jstone@psi.edu) will be the SBN rep for this

   -- need participants to form WG

DDWG Telecon

WebEx still difficult.

We don't have a full set of people.

CCB/SCR Statuses

CCB-164 - We agreed to put this on hold. Maybe a new SCR will be written. Maybe December.

CCB-138 - Talked about this - too few resources. Will also be brought back in December.

CCB-151 - From Anne on bundle member entry. There were many emails on this. Agreed to close it. Was withdrawn by the author. Issue with xsd choice statement.

CCB-166 - Deprecate bit mask from IM See https://pds-jira.jpl.nasa.gov/browse/CCB-166

Jordan is on vacation. Do not want to talk about this without him. On hold.

CCB-162 - Move <md5 checksum> from Object Statistics to Tagged Digital Object See https://pds-jira.jpl.nasa.gov/browse/CCB-162

We kinda started talking about this last time. Steve provided two implementations - we postponed the discussion. Now we are missing people. Not sure we should discuss this now.

~ Disregarding the simplification of the model argument and not considering the NAIF concerns because the MC will decide that - someone just looked at the two implementations from Steve.

In byte stream the file name is first. In tagged digital object the order is that the checksum is first. That order is significantly illogical. Prefers to put it in byte stream. Which is what Boris wanted.

~ Someone agrees and the TA agrees and it's backwards compatible. Gets the MD5 where we want it.

~ Someone else agrees.

Question: If byte stream - then the order is...?

Answer: File name first, MD5 near bottom.

~ Someone else wants to add their support.

We can vote on this.

~ Someone who agreed is on The CCB.

Someone has held a long stated belief that checksums shouldn't be in labels. They don't care about this. As long as it's optional - don't care. Since others have abstained from things in the past - abstaining on this.

We will vote to have checksum in byte stream.

Question: And leave it in file?

Answer: Just vote on adoption now.

~ Approach first.

**The Vote - Checksum in byte stream

Rings - Yes

RS - Not Here

SBN - Not Available** (Side comments - thought that any node representative could vote. Is there an assigned person? No, but the SBN person is a CCB member - can't vote here.) **NAIF - Yes PPI - Yes GEO - Yes IMG - Yes EN - Yes ATMOS -** (Question - is this still optional? Answer - Yes.) **Abstain** (Laughter)

If this was required we would be having a shouting match now.

This passes.

Question: As written does the SCR reflect what we voted on?

Answer: No.

~ So this is not ready for the CCB. We need to pass this back to the author to update.

Question: Is everyone good with that?

Answer: Yes.

~ Yay for our team.

CCB-131 - Missing constraint on Special Constants attributes See https://pds-jira.jpl.nasa.gov/browse/CCB-131

Jesse is now the stuckie for this.

Question: We have a single person on the work group for this. Who else?

Answer: (Silence)

~ Ron is willing, but thinks it would be better if some science people were in it too. People who use special constants.

The problem is that in special constants you can have missing constants - but it's not explicitly stated in

the IM that you can have ASCII missing constant... string maybe in numeric field... other issues too. Work group would need to decide about what's allowed and what happens when binary - what precision - Not sure I'm making this clear...

Question: Any Questions?

Answer: (Silence)

Action Item - Ron will send email to see who else will join the work group. Maybe RS will want to play.

Question: So this is about how we want to indicate special constants - same as the class containing them? What about binary?

Answer: Support ASCII - maybe deal with binary later if the work group doesn't have time.

Jesse is the chair. Ron will email RS.

~ Fine.

Question: Does anyone else want to join?

Answer: (Silence)

~ Alright, than no one can complain when when the work group comes back with a really stupid implementation.

~ Someone volunteers to listen in and say something if the work group is being stupid.

We should see if Jordan wants in.

~ He's pretty busy, but will be asked.

_____

Question: Are there any other burning topics?

Answer: (NOTE: This was said very quickly - note-taker suggests people read the emails that followed the telecon.) Someone could bring one up - if no one objects. From the tech session, not a submitted SCR. Precision, ASCII integer and how to interpret standard now. Was told ASCII integer is explicit - not sure that's true. There was a change in the SR. Look at table 5.A.3 - the description says something about xs:int, which is unbounded. ASCII real is based on double - thought that was it, but then something in the Concepts Document, something about character/binary

tables led to questions. Could write all this down.

~ Someone had suggested that we try to work this out without the DDWG. Someone was on the other side of this, we should at least wait for him to be present to discuss this. This could be written up so a few people can weigh in.

~ It might be premature to write an SCR. We need a problem statement.

The problem statement is that it's unclear if ASCII-* is bounded or unbounded.

~ It's unbounded in xml, it's confusing in the SR.

~ Not necessarily.

We made changes to have unlimited precision.

~ Sounds like ASCII integer changed. Maybe only that - but SR is unclear. There's an inconsistency between the SR and the Concepts Document.

There was an issue raised with CCB-168 which seems to be involved in this discussion. (See CCB-168 - ASCII NonNegative Integer may or may not include + sign https://pds-jira.jpl.nasa.gov/browse/CCB-168) ~ Thought that was a bug fix - could fix quickly without an SCR.

~ That depends on what the meaning of derived data type is.

~ Someone isn't sure. PDS4 data types are mapped to xml as base data types.

Question: Does that mean the requirements are defined by the map?

Answer: Concepts Document... always thought ASCII real and integer had unlimited digits - implementation might be a different question. We're on the right track.

~ CCB-168 is a wider description of data than...(interrupted) ~ Someone didn't want to have this discussion with everyone - unless everyone is interested.

We could say that this is just a bug fix that needs to be consistent.

~ This is not just a bug fix.

Question: There are two threads here. For CCB-168 we need to say that is a bug fix and for this ASCII question we need to write a problem statement. Is this reasonable?

Answer: **Action Item - Lev** will write a problem statement.

~ Was hoping more people would weigh in.

~ Steve, Dick, Ron and Lev will work on this. Others can let Lev know if they are interested. Lev will send email to everyone. **(Action Item)**

Someone would think that everyone would be interested if ASCII real was constrained.

Question: Is ATMOS interested?

Answer from ATMOS: Yes.

Question: Is everyone interested?

Answers:

~ EN: Yes.

~ IMG: Yes.

~ GEO: Marginally - hasn't run into issues of abuse.

~ PPI: Yes, include us.

~ NAIF: No.

~ Rings: Yes, wants to keep track of this.

SBN/RS aren't here.

It looks like most of us are interested in this.

Question: Is there anything else we want to discuss?

Answer: (Silence)