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To: pds4ddwg

Subject:PDS DDWG Notes from 2016-07-07

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July 7, 2016

Notes by Debra Kazden

Known Attendees:

M. Gordon, S.Hardman, S. Hughes, S. Joy, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, T. Morgan, L. Nagdimunov, J. Padams, A. Raugh, and J. Stone

Meeting Agenda and Summary

1) SCRs Under Discussion:

-- CCB-77: Augment Product Update with File Area Update - S.Hughes

-- Open: under DDWG discussion

-- has been TA'd

-- 20141002: There is now a tiger to work Update in general that will start in a few months

-- 20150519: Waiting for M.Gordon ?

-- 20150922: DDWG discussion topic; SCR needs to be updated by Mitch

-- 20160324: Mitch prefers to supersede this SCR and add new SCR

(Not Discussed)

-- CCB-125: The bit mask attribute seems to be misplaced and possibly missing where needed (A.Raugh)

- 20150915: Open; needs DDWG discussion
- 20151008: Jordan to provide example label that uses bit mask
- 20160323: WG: J.Padams, R.Simpson, A.Raugh, R.Joyner
- 20160617: updates discussed by DDWG
- 20160621: Jordan waiting for feedback / comments; then will go back to DDWG
- ** (Not Discussed) **
- CCB-131: Missing constraint on Special Constants attributes (A.Raugh)
 - 20150922: Open
 - 20160223: under DDWG discussion
 - 20160322: EN governance; will take lead
- ** (Not Discussed) **
- CCB-133: Special Constants class precludes the ability to specify multiple invalid/missing constants (J. Padams)
 - 20151012: Open
 - 20151021: Under DDWG review
 - 20151022: WG -- Jordan, Steve and RJ; sent email to WG with proposed changes
 - 20151105: Jordan -- special constants needs to be specified per "band" not per "axes"
 - 20160706: email to Jordan asking about status / progress
- ** (Not 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
- ** (Not Discussed) **
- 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
- ** (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
- ** (Not Discussed) **
- CCB-151: Bundle Member Entry and Internal Reference do not require either LID or LIDVID. (A.Raugh)
 - 20160309: Open & Under DDWG review
 - 20160322: EN governance; will take lead
- ** (Not Discussed) **
- CCB-153: SR Needs Additional Description of Packed Data Fields. (E.Shaya)
 - 20160321: Open
 - 20160322: dependency on CCB-149; and vice-versa
- ** (Not Discussed) **

- CCB-154: Promote a Mission Information class to Discipline Governance Level. (S.Hughes)
 - 20160321: Open & Under DDWG review
 - 20160428: updates discussed by DDWG
 - formed WG: Steve, Anne, Jordan, Joe
 - 20160512: emailed Steve asking if the WG had met and is SCR ready to go back to DDWG for discussion?
 - 20160615: emailed Steve asking if the WG had met to resolve issue
 - ** (Not Discussed) **
- CCB-155: Need "Example Set" to include program test data. (A.Raugh)
 - 20160323: came from discussion of CCB-144
 - 20160323: Open; request to provide additional examples; to include 'test data'
 - ** (Not Discussed) **
- CCB-156: Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al. (A.Raugh)
 - 20160418: Open
 - 20160623: Under DDWG review
 - ** (Brief Discussion) **
- CCB-159: Bug fixes for Version 1.7.0.0. (J.Hughes)
 - 20160426: Open & Under DDWG review
 - ** (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
 - ** (Not Discussed) **
- CCB-163: Correct the Instrument.Type enumerated list (L.Huber)
 - 20160622: Open & Under DDWG review
 - emailed Steve to TA
 - 20160629: TA'd; back to DDWG for discussion

-- 20160630: DDWG vote to push SCR to CCB; even though dissension / contention over results

****(Brief Update from Ron)****

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

-- 20160707: Open

****(Not Discussed)****

Notice sent before the telecon in email from R. Joyner - July 6, 2016 See enclosures:

-- a list of the full topics under discussion by the DDWG CCB/SCR Statuses:

-- CCB-152: field format definition mismatch between IM and SR. (L.Nagdimunov)

-- 20160616: Ready; sent to CCB (as requires IM change)

-- 20160628: Queued_for_Implementation

-- Consent item PASSED: 5 YES (ATM, GEO, IPDA, PPI, RMS); 2 No comment (IMG, SBN)

-- CCB-163: Correct the Instrument.Type enumerated list (L.Huber)

-- 20160706: Sent to CCB for discussion

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

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

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

-- 20160418: Open

-- 20160623: Under DDWG review

-- 20160706: form WG

(2) Local Dictionaries:

-- Configuration management

-- Consistency with the common dictionary

-- Schema validation provenance

-- Version identifiers

(3) Exposing elements in the PDS4 Common XSD (S.Hughes)

- Discussion on elements to be exposed
- DDWG agreed to exposing elements in the PDS4 Common XSD in development version of IM
- 20160607: Implemented and Released in development version of IM v1700

DDWG Telecon

The November F2F might be at Mountain View. Looking there for a hotel. Or another option, possibly.

~ Mark will not be there - will be in Switzerland.

~ Someone thought this was cleared for him.

~ No, he had that commitment a long time. He will be gone all week. Won't be able to have a node meeting with Mark.

~ This will be reported to HQ. Thought Mike A'Hearn also had an issue, but worked it out.

If more people don't show this might be over.

~ Concern over the phone number.

Not enough people.

We should vote to endorse every SCR now that's close.

~ Say all was unanimous.

Someone just joined - had a problem with the phone number.

~ Having a meeting every week has caused issues - had to jerry-rig it - Someone else is trying to dial in, but we still don't have enough people.

Let's go through some of these and see what we can accomplish.

CCB/SCR Statuses

CCB-152 had been sent to the CCB - passed - queued for implementation - changes to the SR and IM - fairly simple.

CCB-163 went to CCB for discussion - it's bouncing around - contentious - Unsure the CCB will accept the SCR.

Let's not discuss CCB-156 yet - see if time permits. Want to talk about LDDs. But first, number 3 on the agenda - Exposing elements in the PDS4 Common XSD - Two weeks ago the DDWG discussed exposing elements in IM. It's been incorporated in the development version of IM 1700. Suggest everyone play with it so aware of the implications for your LDD. Now to LDDs.

##Local Dictionaries

There have been three emails on the concept of dictionary stacks - including a spreadsheet with examples that is included in a message to Todd- was trying to clarify the discussion with him. Trying to relate dictionary stacks to updating standards. One model concept - had to split it up. Think we should go back to that concept - just talking about the IM - not the SR or implementation. Could track changes for IM- track changes - one single copy, but need to manage LDDs separate. Had to partition it. Then LDDs have to be re-ingested. Fine, if releasing the IM every time there's a change. Option C is where stacks come in. See the spreadsheet in email. (See email from Steve Hughes, RE: Dictionary Stack written to .xsd - Geometry, sent July 7, 2016). Columns are stack identifier and stack contents. Every DD has a stack, including common. It's self consistent. At the discipline level, looked at the PDS4 website - these are the stacks that exist and are consistent with IM versions. The Geometry DD is interesting - releases are consistent with different IM versions. Stack contains the IM needed to validate the LDD version. The Colbert DD ties to 1500, won't be changing - would have to use a geometry DD that is consistent with it. Would like to create a Stewart mission DD that would be compliant.

Question: Are there any questions? Is the concept straightforward?

Answered with Another Question: So, for InSight, that and the PDS DD there - so what's excluded is the

discipline DD. Is that because it's not in the InSight DD? Or not in the labels?

Answer: Not sure. Should include all LDDs used by InSight.

~ The InSight LDD probably only includes common. Labels probably also use the geometry and discipline DDs. The question is which way is this going.

~ Assumes it always supports mission - so need a few changes. Stack contains all consistent DDs needed for a label.

Stack implies things that are compliant directionally. These are more like sets.

~ So, started bottom up - maybe should be here are the set of DDs that are consistent with this IM version. The the mission could find the subset they need - get appropriate version by looking at the set tied to the IM version.

~ Yes. Want to make sure people understand. We can make this work.

So, for a particular version of the IM only a certain number of LDDs that are compliant - called stacks or sets.

~ All need the common DD that is compliant with that IM. When 1600 was released, began creating the sets. Need to validate the consistency. Regarding the Colbert example, two issues. The mission wanted to stick with IM 1500, but there's the issue that the Geometry LDD changed to support the Colbert mission - that brings us to the next level - See Colbert version 2. The next page of the spreadsheet. If geometry changed, but Colbert doesn't want to go beyond 1500, than geometry has to stay compatible with 1500. It's a unique versioned instance of the Geometry LDD.

Someone understands, but unsure if a necessary fork. If 1600 DD is compatible with the 1500 IM, then Colbert could be compatible. Incorporates all changes without requiring a change to the LDD version. Many LDDs are consistent with previous versions of the IM.

Either way, fork or whatever, we need a stack to indicate that.

~ That's cause looking bottom up. Someone would have inclusive sets - could be added to any set it's compatible with. Sets would increase.

It's a reasonable alternative. Works either way. Also - back to Geometry DD - in blue - original LDD - Display DD was used. In later versions, it wasn't. These were probably exposure problems. Could fix it so the Display DD could still be used.

~ IM version - took away exposure - copied the class - was a bandaid. Going to exposed elements will make it easier.

~ Symptoms of another problem.

Question: So, if an LDD is tied to version and there's a new IM, do you have to always use that first version?

Answer: Would need a stack with consistent LDDs. Implementation issues in XML schema that we'll have to deal with. For IM, we can keep track of consistency. In stack or set - just label all LDDs and you're done. Heard complaints. People couldn't find consistent LDDs. This solves that. LDD tool has been modified many times.

Consistency is on the DP side. Could end up where they need two different conflicting versions. A nightmare scenario. It could come up.

As release IM - require all stewards to validate consistency and develop stacks for that IM. Have to consider this to resolve the issues. Problem if two DDs are needed from two different stacks.

~ We need to decide if this is tightly bound or not. Implications either way.

~ From an IM perspective, tightly bound is the answer. Stack lets you know what's consistent. Can go the other way.

~ Stacks are not sufficiently tightly bound - allows situations where DPs might need different versions of the same namespace.

~ Interesting. We need to discuss this more.

Question: Any other questions? This is the first cut. Trying to get people to understand what's being proposed.

Answer: (Silence)

CCB_156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al.

See <https://pds-jira.jpl.nasa.gov/browse/CCB-156>

We left off with a top level view of this SCR. In reading the SCR, doesn't seem as constrained as would like. Starts out seeming bound, then degrades into a quagmire. Would like the reporter to go back in and make it tractable.

~ Reporter doesn't understand.

~ This can be discussed off-line.

~ Tomorrow.

This is on hold and we will call the telecon.

No meeting next week. Ron will be on vacation. So, let's hold off for now - But back to SETI. There are no issues here. It all disappeared. Kept asking for issues - no one sent anything - so assuming there's nothing to talk about. Until hears different, closed. Assumes everyone is happy.

Would like bound things - things that can be addressed singularly going forward.

Question: Does that make sense?

Answer: Not a lot.

~ Okay, we can discuss that. Will call the telecon. Going on vacation and then will send a new agenda.

Question: Where's the SCR on what we just discussed?

Answer: Having an SCR is the goal, but not opposed to good discussion. That really belonged in the SETI issues.

~ So, if we want to discuss an open ended issue - email Ron some things we want to discuss before there's an SCR.

~ Just trying to work through some of the ways of operating here.

Have a good one.