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

Sent: Monday, February 01, 2016 10:54 AM

To: pds4ddwg

Cc: Law, Emily S (3980); Joyner, Ronald (398G)

Subject: Fwd: Notes from PDS DDWG 2016 01 28_version 2

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title: DDWG Notes 2016-01-28

layout: default

date: 2016-01-28

#January 28, 2016

Notes by Debra Kazden

Version 2 - February 1, 2016

 ~ These version 2 notes include the following correction: the first SCR discussed was CCB-65, not CCB-66
as reported in the original version of the notes.

Known Attendees:

R. Chen, M. Gordon, E. Guinness, L. Huber, C. Isbell, R. Joyner, D. Kazden, J. Mafi, C. Phillips, J. Padams,

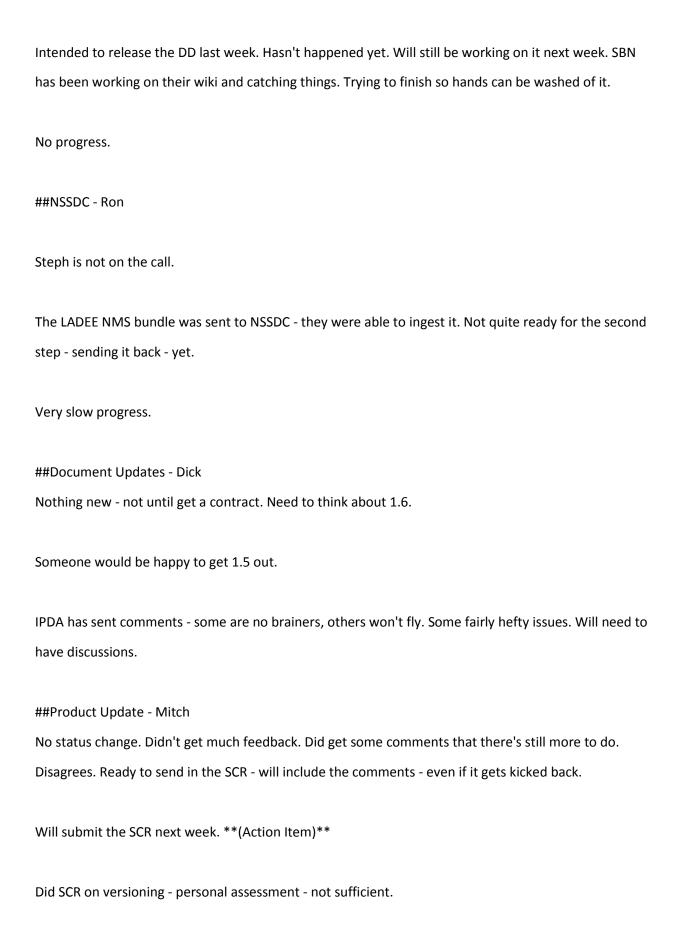A. Raugh, B. Semenov, R. Simpson and J. Stone

##Meeting Agenda and Summary

1) CCB/SCR Statuses/Issues

    -- No changes since last meeting

2) Task Statuses - 5 Minutes each

   (Brief updates)

3) SCR Issues to discuss:

-- CCB-65: Need additional Target Identification/type values (A.Raugh)

    -- URGENT - enhancement / improvement

    -- Open:

      (1) Needs Proposed Solution

      (2) Needs Requested Changes

    -- 20150730: DDWG -- Anne to think about working the solution;

    -- 20150813: formed WG: J.Mafi, Ed.G, A.Raugh, RJ

  (Brief mention)

-- 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

  (Discussed under task statuses)

-- CCB-129: Implement PDS4 Query Models (S.Hughes)

    -- 20150914: Open & Under DDWG review

  (Discussed - will continue the discussion in email)

-- CCB-132: Units of Map Scale Improperly includes pixel/deg as a unit (J. Padams)

    -- 20151007: Open

    -- 20151007: Email to Jordan to provide explicit changes to IM

    -- 20151008: I updated SCR to include specific changes required; ready for Steve to TA

    -- 20151012: TA'd; email to Emily and Dick to review

    -- 20151013: Email from Jordan to pull back for further discussion / work

    -- 20151022: Jordan to finalize new & improved proposal before next DDWG

    -- 20151104: Jordan updated SCR as comment in JIRA

    -- 20151105: DDWG agreed to send to CCB

    -- 20151116: Needs TA; then ready for CCB per DDWG

-- 20151117: TA'd by Steve; Emily reviewed; Dick sent email with concerns

-- 20151118: Setup telecon to discuss Dick's concerns

-- 20151119: DDWG discussion; send to CCB if no comments

-- 20151123: Needs TA; then ready for CCB per DDWG

-- 20151202: Emily and Dick reviewed -- Ready

-- 20151208: CCB e-vote; rejected

-- M.Showalter proposed name changes:

Units of Map Pixel Resolution

Units of Map Pixel Scale

-- CCB will have telecon to discuss

-- 20151222: CCB sent back to WG / DDWG to re-work

(Brief Discussion)

-- 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"

(Brief Discussion)

-- 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

(Brief Discussion)

-- CCB-139: Resolve Standards Inconsistency in Bundle 'Readme' File Format (R.Simpson)

-- 20151207: Open; under DDWG review

(Brief discussion - ready to be sent to CCB)

-- CCB-140: SR Section 6E.3 levies unnecessary requirements for attribute values (J.Padams)

-- 20151229: Open;

-- 20160126: Under DDWG review

   (Discussed - will be withdrawn)

-- CCB-141: ASCII Numeric Base16 is inconsistent with xs:hexBinary definition (J.Padams)

   -- 20151229: Open;

   -- 20160126: Under DDWG review

   (Brief discussion)

-- CCB-142: Bit Mask should be moved into a new object called Data Quality Flags (E.Shaya)

   -- 20151229: Open;

   -- 20160126: Under DDWG review

   (Decision to invite Shaya to the next DDWG telecon to discuss)

4) Topics for Discussion

-- SETI Issues (R.Simpson etal)

   -- Status

   (Not Discussed)

-- The Stream Text parsing standard id (Steve, Simpson)

   -- CCB-139: Resolve Standards Inconsistency in Bundle 'Readme' File Format (R.Simpson)

   -- Status

   (Brief discussion - ready to be sent to CCB)

-- Rules for Collections of type Data (Steve)

   -- CCB-129: Implement PDS4 Query Models (S.Hughes)

   -- validated via schematron rules

   (Discussed - will continue discussion in email)

##DDWG Telecon

Not everyone is here today.

##Geometry - Mitch

Intended to release the DD last week. Hasn't happened yet. Will still be working on it next week. SBN has been working on their wiki and catching things. Trying to finish so hands can be washed of it.

No progress.

NSSDC - Ron

Steph is not on the call.

The LADEE NMS bundle was sent to NSSDC - they were able to ingest it. Not quite ready for the second step - sending it back - yet.

Very slow progress.

Document Updates - Dick
Nothing new - not until get a contract. Need to think about 1.6.

Someone would be happy to get 1.5 out.

IPDA has sent comments - some are no brainers, others won't fly. Some fairly hefty issues. Will need to have discussions.

Product Update - Mitch
No status change. Didn't get much feedback. Did get some comments that there's still more to do.

Disagrees. Ready to send in the SCR - will include the comments - even if it gets kicked back.

Will submit the SCR next week. **(Action Item)**

Did SCR on versioning - personal assessment - not sufficient.

Simulation & Model and Software Archive WGs - King, etal Todd is not on the call.

Assumption is that there will be a report to the DDWG soon.

~ Might be to the MC next week.

The groups met. Not much to say yet. A few recommendations to make to MC. Still need some further guidance.

CCB-65 - Need additional Target_Identification/type values See https://pds-jira.jpl.nasa.gov/browse/CCB-65

This needs to be written up for a work group.

CCB-77 - Augment Product Update with File Area Update See https://pds-jira.jpl.nasa.gov/browse/CCB-77

This was already talked about.

CCB-132 - Units of Map Scale is Badly Defined See https://pds-jira.jpl.nasa.gov/browse/CCB-132

Some changes were made in jira - proposed another solution. Merges some of the previous solutions. Still needs to be evaluated. Thinks it's a compromise.

People will look at it. **(Action Item - Ed, Mitch, Chris and others)**

Question: When was this updated?

Answer: Forty four minutes ago

~ One new thing to bring up - IMG has an issue regarding the cost of the time spent evaluating CCBs. Not sure who stakeholders are. Need to identify who can approve our time to spend on these before they leave the DDWG.

The practical issue is going to be trying to identify those people.

We need a pre-CCB CCB vote. It needs to be unanimous.
 ~ That gives everyone veto power.

Not sure we can solve this here, but we've all been frustrated with this. This fresh perspective is positive.

DDWG needs to have a F2F to deal with issues that are piling up. Three or four days to nail down the big ones - especially since we got the ESA feedback.
 ~ Someone agrees. We make more progress when we are F2F, but we still need to settle the SETI issues.

Action Item - Mitch will send email to Steve to see if he can propose a F2F.

Someone is not sure this is cost effective, could use Web-ex.
 ~ That's not always cost effective.
 ~ Not all of us solve problems by sitting down - some need to draw on boards and talk to others.
 ~ We get a lot done at F2Fs.

##CCB-133 - Special Constants class precludes the ability to specify multiple invalid/missing constants
See https://pds-jira.jpl.nasa.gov/browse/CCB-133

Nothing new.

Question: Are we going to let this sit?
Answer: Need to figure out where it goes. The original solution won't work.

Question: Have we looked at the Spectral DD?

Answer: Thinks that's where it will go. IMG and USGS need to work on it.

#CCB-138 - Mismatch between context object types and values of type in Observing System Component class See https://pds-jira.jpl.nasa.gov/browse/CCB-138

Anne was surprised to learn that she's in the work group for this. Will see if PSI will take over. Thinks they have a vested interest. Has a telecon with PSI this afternoon - will try to get someone involved.

#CCB-139 - Resolve Standards Inconsistency in Bundle 'Readme' File Format See https://pds-jira.jpl.nasa.gov/browse/CCB-139

People are fine with the proposal to make the aareadme file only a text file - no html option.

Question: Any objections to this going to the CCB?
Answer: (Silence)

Action Item - Ron will send it to the CCB.

#CCB-140 - SR Section 6E.3 levies unnecessary requirements for attribute values See https://pds-jira.jpl.nasa.gov/browse/CCB-140

This is a new one.

Problem statement from jira reads: "SR Section 6E.3 requires 'title case' for enumerated values, which is an unnecessary requirement that will require processing of product data prior to PDS label creation."

This is insanity. Insane. Would have to use software and have an acronym database, update DDs. Would

have to do title case transformations.

Someone is puzzled by this.

Every attribute in the IMG DD has all caps and underscores from MIPL. These values would all need to be translated. Even PDS(underscore)IMG would need to be transformed.

Someone is not clear.

We had an extended argument on this years ago.

This is a PDS wide requirement - some exceptions do allow for acronyms and underscores. Good for simplicity and validation. You have to have agreement.

We could put in all caps for values.

Question: This is enumerated values - what is the problem?
Answer: Someone is creating enumerated value lists. Major issue. Has to do tons of translations - prefers all caps and underscores.
 ~ Missions should do it correct to begin with.
 ~ Tell MIPL to do it right to begin with.
 ~ They use underscores to get rid of white space - and all values are upper case.
 ~ That's PDS3.

Asking us to bend PDS4 rules to make things easier for MIPL is not a precedent we want to set.
 ~ Have to do the work for migrations, but going forward the pipeline should be designed to be correct.

Someone sees this as a huge cost - white space could force new lines.
 ~ PDS3 missions are all that's concerned here.

~ There are new missions that are like PDS3 missions - like InSight to MSL.

~ InSight needs to follow our rules.

~ New lines shouldn't be an issue once keywords are processed.

If this is a non-issue we can close this.

~ RS votes to close.

This will be withdrawn.

If no enumerated list, then the rules don't apply. Not everyone agreed with the title case rule, but it's what the majority wanted.

Question: Could someone talk to Bob Deen?

##CCB-141 - ASCII_Numeric_Base16 is inconsistent with xs:hexBinary definition See https://pds-jira.jpl.nasa.gov/browse/CCB-141

Elizabeth found a flaw. Need a schematron rule to address this. Would like EN to write it because they could do it in three minutes. Has minimum length 1 and maximum 255 right now.

Hex binary has an even number of digits. Minimum/maximum being odd is already precluded.

Will check back with Elizabeth.

##CCB-142 - Create Data Quality Flags to hold metadata on Quality Flags See https://pds-jira.jpl.nasa.gov/browse/CCB-142

Ed Shaya might be a little off base - has some very specific ideas on how bit masks should be used - not sure it's appropriate.

~ Someone is not sure what's going on here.

Action Item - Ron will invite Ed Shaya to our next telecon.

This is related to many conversations that were interrupted.

CCB-139 - Resolve Standards Inconsistency in Bundle 'Readme' File Format See https://pds-jira.jpl.nasa.gov/browse/CCB-139

This is moving to the CCB.

CCB-129 - Implement PDS4 Query Models See https://pds-jira.jpl.nasa.gov/browse/CCB-129

Steve is not on the call.

The emails are flying on this.

Question: Shouldn't Steve be here for this?
Answer: He's in Arizona for the EN review.

People have looked at this and sent votes. Still unsure - have questions on things like primary results summary processing level. PSI says it's multifaceted.

Question: In collections?
Answer from PSI: Some Cassini mission products did have multiple processing levels in a product.
~ Confusion caused by language. Need to talk about collections. Datasets are like bundles.

Question to PSI: Can you get us a real example?
~ Someone is not sure if we should ever mix processing levels in a collection.

~ Considered it at the bundle level - not sure we talked about collection. If we decide it's fine, then cardinality of processing level should be one to many. Don't want to exclude processing level from search.

People might search by processing level, but some products would never be searched for that way.

IMG decided not to break down processing level at the bundle level. SR doesn't have any requirements to break down processing level.

As was suggested last time - if primary results summary is there and valid, then that's all we need. Don't need to check for all the other stuff.

We're trying to figure out what attributes you can count on being there - just primary results summary isn't enough.
~ Things that do not apply in all cases could be not present. None required because there's always a case where things don't make sense. Best we can do is require primary results summary is present and valid. We can do a visual check.

Primary goal is that info is appropriate for a reasonable search. Processing level is appropriate depending on what you're searching for.
~ Not everyone is happy with the primary results summary solution. We narrowed this down to mission science data collections. This is a first step for search - want as many as practical. Don't think we want to impose requirement that only one processing level is allowed.
~ Easier for searching users if calibrated data is separate from raw data.
~ Haven't made this a requirement. Not sure where we go from here. Challenging.
~ Problem isn't sufficiently constrained. Depends on the type of data you're dealing with. Could come up with very specific query models.
~ Not sure how to further divide mission science data collections. This was the work groups first attempt at a solution. Lots of attributes - just not sure they are all meaningful.

~ Can't search on description.

~ Description isn't part of the query model.

~ It could be used for a Google like search - all words and text.

~ Used at Rings - have tons of keywords that users don't see. We have the information in citation description keywords - that would enable search.

~ There are three or four descriptions on the list - should only be one.

People want to hear Sean's feedback on this. (He is not on the call.)

Someone says that logically to them, keywords and description should be in collection class. If we go this route will have to change the model to make this work.

~ Query model is being written as part of the IM. We don't have a product mission science data collection yet. Will make the optional things required for that one.

Off track. Example - science facets discipline name - unsure what that is, and enumerated list has nothing useful for many GEO datasets.

~ We need more enumerated values in the list.

~ We need to verify what enumerated values mean so can have sensible enumerated lists.

Timing not good. Won't get this to the CCB next week. The MC is next week. This will have to be discussed next telecon - February 11. Not ready for CCB yet.

~ People agree.

Someone would like to see the list of nominally optional attributes that would be made required for the CCB.

~ The CCB will probably discuss this at length.

~ We should tell them what we want to include/exclude and the rational. Need to decide about description, keywords, cardinality of processing level, enumerated values for domain and discipline.

Need more email going on this. Need a test case in place to see how this works. Should make effort to get this through for the build.

 ~ That would need to be in next few weeks.

Question: So this would be implemented via schematron rules in core schema?

Answer: Yes.

Question: How will this be made known to data providers?

Answer: They'll get errors in schema.

 ~ Someone would like an appendix in the DPH to let providers know. Could be fairly easy to write.

 ~ Should be in SR.

 ~ Not in DPH.

 ~ Could be in general policy section of SR.

 ~ Could go in chapter 9 or section where we talk about collections.

 ~ That's probably right - if making collections, only want to go one place.

 ~ Quite a lot of standards are very high level and detailed. Not seeing "here's what you do to create a bundle or collection..." SR may need a new section.

Doubt this will be in the next SR, even if approved. Documents are not moving very fast.

 ~ We could still have the SCR for what should be included in the SR - and can put it on SBN wiki.

Question: Anything else? Seems we'll need to revisit this. Are we proposing a work group?

Answer: No. DDWG email exchanges on specific issues that are open. Also need feedback from Sean. **(Action Item - Sean)**

Question: Anything else?

Answer: We'll meet in two weeks. MC is next week.

Dick and Lyle may not be on the next telecon.