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#March 24, 2016

Notes by Debra Kazden

Known Attendees:

R. Chen, M. Gordon, E. Guinness, S. Hardman, L. Huber, S. Joy, R. Joyner, D. Kazden, J. Mafi, S.

McLaughlin, L. Nagdimunov, J. Padams, A. Raugh, and J. Stone

##Meeting Agenda and Summary

1) CCB/SCR Statuses

-- CCB-147: Bug fixes for Version 1.6.0.0 (S.Hughes)

-- 20160217: Open & TA'd

-- 20160222: Ready - bug fix, just need consent, no vote needed

-- 20160323: CCB Consent item PASSED: 3 Yes (ATM, GEO, RMS), 4 No comment (IMG, IPDA, PPI, SBN)

(Quickly Discussed)

2) Task Statuses - 5 Minutes each

(Quick 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
 - ** (Discussed) **
- 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 - ** (Discussed - will be superseded will new SCR) **
- CCB-100: Remove Array 2D and Array 3D from File Area. (T.King)
 - Open; Under_DDWG+Review: 20150201
 - 20150519: sent email to C.Isbell asking for input (since E is not available)
 - 20150602: sent email to C.Isbell asking for input (since E is not available)
 - 20150604: C.Isbell entered IMG comment -- waiting for Steve TA
 - 20150609: TA'd by Steve with recommendation to withdraw SCR
 - 20151007: J.Padams requested to table this until after Insight; Maybe end of November/early December?
 - 20160315: J.Padams added comment to JIRA that IMG wants to retain Array 2D and Array 3D
 - S.Hughes updated TA; sent email to Todd requesting that PPI withdraw SCR
 - 20160322: Emails between Simpson & Todd to re-word SR
 - ** (Quick update) **
- 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
 - ** (Discussed) **
- CCB-131: Missing constraint on Special Constants attributes (A.Raugh)
 - 20150922: Open
 - 20160223: under DDWG discussion
 - 20160322: EN governance; will take lead
 - ** (Quick Comment) **
- 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: Set up 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
 - 20160204: MC on 2016-02-04, Jordan et al violently agreed on a workable solution

****(Quick Comment)****

-- 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"

****(Quick update)****

- 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-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'

****(Brief Discussion)****

-- CCB-143: Validate field format via regex (Lev Nagdimunov)

-- 20160210: Open & Under DDWG review

-- 20160322: EN governance; will take lead

****(Quick Comments)****

-- CCB-144: Some examples in Examples collection are incorrect or out-of-date (Lev Nagdimunov)

-- 20160210: Open

-- 20160322: EN governance; will take lead

****(Brief Discussion)****

-- 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
 - ** (Discussed) **
- CCB-150: Add value "Balloon" to type list in Facility class (A.Raugh)
 - 20160309: Open & Under DDWG review
 - 20160310: DDWG proposed alternate solution for Balloon;
 - Steve is re-writing SCR today so CCB can discuss next week
 - 20160314: Ready -- sent email to Emily and T.Stein to send to CCB for review
 - 20160317: T.Stein posted comment questioning why the SCR needs to go to CCB
 - expects A.Raugh to address his comments before sending to CCB
 - ** (Quick Comments) **
- 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
 - ** (Brief Discussion) **
- CCB-152: field format definition mismatch between IM and SR. (L.Nagdimunov)
 - 20160309: Open & Under DDWG review
 - 20160322: EN governance; will take lead
 - ** (Brief Discussion) **
- CCB-153: SR Needs Additional Description of Packed Data Fields. (E.Shaya)
 - 20160321: Open
 - 20160322: dependency on CCB-149; and vice-versa
 - ** (Quick Comments) **
- CCB-154: Promote a Mission Information class to Discipline Governance Level. (S.Hughes)
 - 20160321: Open & Under DDWG review
 - ** (Quick Comments) **

4) Topics for Discussion

-- Proposal: CCB-1xx: Remove Enumerated List from Instrument.type (L.Huber)

-- Status & develop implementation plan

****(Discussed)****

-- SETI Issues (R.Simpson et al)

-- Status

-- Issues in XLS have been vetted by SETI notes

-- Issues to be "consolidated" & prioritized

****(Quick Update)****

-- IPDA PDS4 Project: 2014-2015 Final Report (S.Martinez, S.Hughes)

-- Status & develop implementation plan

****(Quick Update)****

##DDWG Telecon

Not a very big group today. Steve H and Dick are not here today. Might postpone Dick's stuff.

Normally more people on the call by now.

##CCB/SCR Statuses/Issues

##CCB-147 - Bug fixes for Version 1.6.0.0 See <https://pds-jira.jpl.nasa.gov/browse/CCB-147>

Simple bug fix - document changes for 1.6. The CCB consented.

~ It seems that people are busy now. It's hard to get work groups together. We need champions for SCRs. There needs to be a sunset clause of one year per SCR - if no champion in a year the SCR goes away.

EN has noted SCRs that should be under EN governance. Would like to know if people agree.

Basically, need three things for SCRs:

- 1) Identify a champion
- 2) If no champion, sunset clause
- 3) EN governance - EN will take the lead and push SCRs through

##Task Statauses

##Geometry- Mitch

Current version of the DD has a lot of min/max and start/stop pairs that need schematron rules. DD was sent out for comments.

In LDD tool. Will get into 1.6

Believed to be done - don't expect new attributes or classes.

~ Need to consider uniformly sampled.

~ That's part of the IM, not Geometry DD.

Confusion

Someone thinks the IM needs tweaking.

~ Someone else is not sure that will get a change to uniformly sampled for 1.6 at this point.

~ First someone wants to discuss this.

Question: Is it okay to send the DD to the DDWG?

Answer: Yes.

##NSSDC - Steph

Question: Anything to report other than that you are not getting what you need from EN?

Answer: That's it, thanks.

EN folks still need to agree.

##Document Updates- Ron

Basically, nothing happening. Group is one person until RS gets funding back.

Todd has an MC work group developing work on the PAG. Getting really good feedback. Hopefully out in April.

##Product Update - Mitch

There will be an SCR before our next call. Will recommend that CCB-77 is superseded and write a new SCR.

##Build 6b - Sean

No comment.

Question: When will registry and harvest be ready to install at the nodes?

Answer: By the end of April. It takes a while to test and install at EN - then it's safe to install at the nodes.

##DDWG Meeting Day - Ron

It's been suggested that here is not enough time from when we meet - we could move to earlier in week - so there is enough time to get things to the CCB.

Question: Comments?

Answer: If we approve something on a Thursday it's a week or ten days before the CCB can vote on it.

We just need to be aware of that.

~ Most changes won't get in for 6 to 9 months depending on where we are in the build cycle.

We had one SCR that couldn't get into 1.6 in time.

~ Exception rather than rule.

Question: EN is okay with keeping Thursday, but one person suggested a change. Comments anyone?

Answer: Years ago there were many conflicts and that's why we picked Thursday. Been arranging schedule around this meeting for years. We were here first, but willing to change if need be.

~ Tuesday isn't good for IMG.

~ Wednesday isn't good for GEO.

We're keeping the telecon on Thursday.

##SCR Issues

Again, for SCRs we are looking for a champion, will have a sunset clause and EN will try to handle the ones with EN governance.

Question: Wouldn't that mean we have to officially change the rules of the CCB?

Answer: Maybe, but we have a year. Lots lagging.

CCB-65 - Need additional Target Identification/type values See <https://pds-jira.jpl.nasa.gov/browse/CCB-65>

SBN submitted something for this and expected it to be in 1.6, but it's not.

CCB-150 is queued for next week.

We will take this off line.

Question: How was it submitted? The CCB hasn't been changed in a long time...?

Answer: It was updated February 25, 2016.

~ This discussion should go off line.

~ Annoyed cause got this in in February. It's not a show stopper.

This won't be in 1.6. Frozen and under testing.

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

This will be superseded with a new SCR.

##CCB-100 - Remove Array 2D and Array 3D from File Area See <https://pds-jira.jpl.nasa.gov/browse/CCB-100>

Dick and Todd are going back and forth in email. Champions.

##CCB-125 - The bit mask attribute seems to be misplaced and possibly missing where needed See <https://pds-jira.jpl.nasa.gov/browse/CCB-125>

Jordan was to provide an example, Dick is looking into it.

The CCB was that it shouldn't be part of statistics. Doesn't really have much to do with all the crap going on. It was very focused and simple.

~ IMG agreed that this has snowballed. Think RS thought it should be taken out - not sure about that.

The larger issues are beginning to show up as their own CCBs. Maybe we could withdraw this.

~ Not sure people want to remove bit mask. The idea seems to be that it might be in the wrong place.

~ Unsure - it's been a long time...

~ No one is sending us new masked data. Not sure we need this for PDS4, but doesn't effect SBN - might effect legacy data. To be fully compliant would have to touch the bits, but behind not allowing masked data.

Question: Can Jordan be the champion for this?

Answer from Jordan: Sure, but not sure when.

~ EN could try to pursue this independently.

~ It might not be that narrow in scope. We might need bit masks.

~ But it still shouldn't be in statistics. Flags are a different problem, might have a different solution from bit mask.

~ Agreement. There are two issues. Bit mask goes way back, for example, the Viking system - intent was to show real versus pad bits - different from a data quality flag.

It could still make sense to keep it.

Don't want to rename the statistics class. Think that class will remain - others may be added and have some overlap, still think the issues are separable.

~ Fair.

Question: Jordan is leading. Who else is in the work group?

Answer: Anne filed it. Dick should be in.

~ Need to poll the nodes - maybe see if no new masked data is okay.

This will be worked off line.

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

Think EN governance.

Question: People okay with that?

Answer: Agree.

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

Jordan has made a career of working through this SCR.

Still having issues with definitions.

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

Jordan was going to re-do this by band, not axis.

~ Not yet.

##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>

Have a work group - established in December.

SBN doesn't know about the group, but has finished going over the schemas to update their wiki, so it's fresh in their brain. Hopes to turn that into an analytical matrix.

##CCB-142 - Create Data Quality Flags to hold metadata on Quality Flags

See <https://pds-jira.jpl.nasa.gov/browse/CCB-142>

Dick isn't here to discuss this.

Question: Does anyone want to comment?

Answer: The solution from Dick, the one he likes best - description field - think that's a non-starter. It's a human readable field. Think we need a computer standard defined. Then we need to decide about the utility, but not sure how we would use the human readable field to define that.

People can send feedback to Dick and Ed Shaya.

~ Someone thought we were going to discuss this on this call.

##CCB-143 - Validate field format via regex See <https://pds-jira.jpl.nasa.gov/browse/CCB-143>

EN hasn't tested regular expression yet.

~ Someone has tested it and thinks it works, but EN should test it.

EN has governance.

##CCB-144 - Some examples in Examples collection are incorrect or out-of-date See <https://pds-jira.jpl.nasa.gov/browse/CCB-144>

The examples are incorrect. EN and RS are working on it, but RS doesn't have funding.

Falls under EN governance with help from Dick.

Question: Who will fix the examples?

Answer: Ron and Dick.

Question: What does fixing mean?

Answer: Worst was table binary - used character data and mapped, but wouldn't validate....

A request, if you are adding to the examples - would be really helpful if could test that the software is reading data correctly.

~ When reviewed the PAG this week it referenced the examples, if using the examples to test software, need to make sure the values are real.

The examples need some fixing.

The examples are not in 1.6 yet.

Someone else agrees with request to make sure software is reading data correctly.

~ So, post that to jira so we can capture what you want.

~ Anne will start an SCR and mail it to the DDWG so people can add to the list. ****(Action Item - Anne)****

##CCB-149 - Should PDS4 allow packed data?

See <https://pds-jira.jpl.nasa.gov/browse/CCB-149>

Interesting high level question about allowing packed data - then 153 showed up, but thought RS was only one who needs it.

~ PPI needs it for migration.

Question: PPI is migrating packed data?

Answer: Yes. PPI intends to migrate.

Another Question: Any reason you can't unpack?

Answer: Don't want to have to re-peer review.

Another Question: Is there a requirement that migrated data be peer reviewed?

Answer: If touching the data need to peer review.

~ No, you just have to verify that the data is still the same.

~ We would also need to update the documentation.

~ PPI is talking about raw telemetry data.

Another Question: But what takes precedence? Keeping old format at expense of having to re-review the data?

~ Someone sees this as a one time expense.

~ This would be condemning PPI to run two systems. Won't migrate it without ...(Interrupted) ~This clearly violates accessibility of PDS data... Fits format...

TBtool reads this just fine.

~ That's an old PDS3 tool.

Question to Sean: Is TBtool being maintained?

Comment from PPI: We still use it.

Answer from Sean: One of the outcomes of the performance review was to stop maintaining PDS3 tools, but TBtool is pretty robust.

~ PPI was refuting the idea that no tool can read (packed data) ~ Good refuting if it can read the data and shows the whole column.

~ It reads a four bit number, returns value between 0 and 16.

~ Someone will take a look, but still thinks shouldn't introduce this in PDS4.

Question to PPI: When might the example work be ready?

Answer: Not this week or next. After that. Steve Joy needs to help. He's difficult to schedule.

So, PPI will be the stuckie.

##CCB-150 - Modify Product Context to accommodate Balloon See <https://pds-jira.jpl.nasa.gov/browse/CCB-150>

This is scheduled for an evote from the CCB next week - let us pray.

Question: Balloon...oh, never mind.

##CCB-151 - Bundle Member Entry and Internal Reference do not require either LID or LIDVID
See <https://pds-jira.jpl.nasa.gov/browse/CCB-151>

Fairly simple schematron rule that EN can take the lead on. Would be a quick bug fix.

Someone found more like this. Could file them now or wait until 1.6 is done.

~ If schematron rules, CCB doesn't care, so email them to EN. Could be filed under global bug fixes.

Question: Where's TBtool?

Answer: Will take this off line.

~ If this is a critical tool for reading packed data it should be available.

~ Look under Legacy Tools - PDS Tools - Other Tools.

##CCB-152 - field format definition mismatch between IM and SR See <https://pds-jira.jpl.nasa.gov/browse/CCB-152>

EN will take the lead, but could have dependency on Dick's good will.

Someone responded in jira that they agree with the the more important bit, but the less important bit is a feature, not a bug fix. Seems intentional. Not sure why prohibited. Maybe we want to allow, maybe not.

Ron will check past email.

##CCB-153 - SR Needs Additional Description of Packed Data Fields See <https://pds-jira.jpl.nasa.gov/browse/CCB-153>

This depends on CCB-149, so not gonna talk about it yet - unless someone wants to.

Description field - definitely.

##CCB-154 - Promote a Mission Information class to Discipline Governance Level See <https://pds-jira.jpl.nasa.gov/browse/CCB-154>

Question: Does anyone know what the catalyst was for this? It's new - not sure what this is about...?

Answer: The SCR says it came from Santa.

If this is from Santa and Steve H. we will postpone this for now.

##Topics for Discussion

****SETI ISSUES**** - There have been a few drafts on SETI issues. Sending around EN - when more concrete will bring back to work group - make sure work groups align - then to DDWG/CCB. A few started.

****IPDA**** - At least one SCR addressing their comments.

Question: Anyone else?

Answer: The importance of uniformly sampled - introduced an attribute - part of table - number of

sampling parameters should be same as records in table - if different then not a uniformly sampled table.

~ Duplicate. Not being validated - not sure when this got added.

~ It's part of what Ed Shaya added. Can get the value from the records. Wanted to bring this up - was intended only for logarithmics. Allows users to hang themselves. Should remove this.

Not sure how we would back this out.

~ If we need CCB action to approve its removal then we need a new SCR or it's a bug fix.

Confusion.

Ron will send email to Emily and Tom to remove this ****(Action Item)****

Just remove this one thing.

Question: Can you send an email to Ron on what needs to be changed?

Answer: Yes. ****(Action Item - Lev)****

Another Question: Has this been discussed with RS?

Answer: No - discussed with Ed Shaya.

~ CC Dick on the email.

This is CCB-128 - DD description of Exponential and Logarithmic uniformly sampled data needs improvement - see

<https://pds-jira.jpl.nasa.gov/browse/CCB-128>

We're over time now.

CC Anne on the email too.

Steve H. is gone this week and next.

~ Worst case is that we file a new SCR on this or do a bug fix release.

~ If it wasn't implemented correctly it would be easier.

~ EN could say it's a logical problem.

Next meeting in two weeks.

We need to talk about instrument type now. First. Before the next build. This must be resolved. That's a new SCR passed by June. Suggest we start discussing it. We should all have an action item for the next call to figure out what enumerated list does for us and what the conditions of membership in the list means so we can have a logical polite discussion on the next call.

Question: Are you on the email where Steve H is promoting classification scheme?

Answer: This can't wait forever. Need to start this. Still think there's no reason to have enumerated list - we need to figure out why we are doing this.

~ Send email to Steve H to say this needs high priority. ****(Action Item - Lyle)**** ~ Thought YOU run this meeting.

~ Better coming from YOU.

~ Thought Ron is the chair.

~ Ron can send the email, but there is progress being made - maybe not in the direction you would like.

Ron can send email that this came up.

~ If progress is being made - no one told him.

~ Not sure who is on the email to work out the details and bring it to the DDWG.

Question: We need to understand the purpose of the list. If we don't understand why we're doing it, then why are we doing it?

Answer: We need to hear from people.

Question: Who wants to be on the work group?

Answer: This should be the entire DDWG. Tiger team no good. Needs to be all of us. We discussed this in the design process.

Ron will send email to Steve H. Hopes he makes sense. ****(Action Item - Ron)****

Someone is having trouble. Wants to know regarding instrument type. Complex, but registry to search is very simple. Trying to understand why prefer one method over another when it comes to facet based search.

~ We have some complexity - since adding google like search, mapping etc. Used to get hits. Hard to maintain.

~ Part of PDS4 was to lower maintenance costs.

~ We haven't achieved that.

Question: We need to consider what capability end users need. Is it possible to have that discussion?

Answer: Yes. Sean and Steve have discussed it. This is what led to the classification straw man. Probably should discuss to answer Lyle's question. Not clear to EN that users query by instrument type.

~ Yes. They search based on output, but we have problems we need to solve with search and the registry. Want to understand the underlying mechanics.

~ When builds index, tries to get rid of flattening the the registry does - should have this conversation.

Can start with SBN/PSI. Thinks maybe early April-ish.

Anne will coordinate the SBN folks.

~ Please include Todd.

~ Yes - was thinking Mark Showalter too. Will inform DDWG list, but will be a tech heavy discussion.

****(Action Item - Anne)****

Question: Anything else?

Answer: (Silence)

Next meeting in two weeks.

This was pretty productive. We should do this again.