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# September 29, 2016

Notes by Debra Kazden

Known Attendees:

R. Alanis, M. Gordon, E. Guinness, L. Huber, C. Isbell, R. Joyner, D. Kazden, S. McLaughlin, L. Neckrase, J. Padams, A. Raugh, B. Semenov, R. Simpson 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

**\*\*(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
  - 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
- \*\* (Not Discussed) \*\*
- 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)\*\***

-- 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

**\*\*(Discussed)\*\***

- 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
- \*\* (Discussed) \*\*
- 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 - September 28, 2016 See enclosures:

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

CCB/SCR Statuses:

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- CCB-155: Need "Example Set" to include program test data. (A.Raugh)
  - 20160915: DDWG agreed to Close SCR
- CCB-159: Bug fixes for Version 1.7.0.0. (J.Hughes)
  - 20160927: Queued for Implementation:
    - Item PASSED: 6 Yes (ATM, GEO, IMG, IPDA, PPI, RMS); No objections

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

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

- CCB-164: Display Settings not required for images (A.Raugh)
  - 20160707: Open
  - 20160727: Under DDWG discussion
  - 20160805: A.Raugh added comment to address applicable set of objects
  - 20160818: Under DDWG discussion
    - A.Raugh to 'move' comments to body of the SCR -- ready for TA & vote?
  - 20160829: R.Simpson added comment with suggested implementation of promoting classes (e.g., Display Settings) in DISP LDD to common IM
  - 20160901: A.Raugh to propose new strategy to address: repeat local internal reference makes ugly labels
  - 20160915: put this SCR on hold; create new SCR:
    - multiple instances of <local identifier reference> attribute appears inside of <Local Internal Reference>  
and there is no longer a one-to-one relationship to the <local reference type> attribute
- 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 updated SCR 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
- 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
- CCB-131: Missing constraint on Special Constants attributes (A.Raugh)
  - 20150922: Open; under DDWG discussion
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### ## DDWG Telecon

The WebEx still isn't working well for everyone.

### ## CCB/SCR Statuses

CCB-155 - About needing an example set - we agreed two weeks ago to close the SCR. Tom Stein is okay with it - so yay for our team.

CCB-159 - the catch-all for 1.7 went to the CCB - passed. In a day or two everything should be finalized. The build will be out by the end of the month.

All the LDDs that rely on exposed attributes were supposed to be submitted - there was email from Emily on this. (See email from E. Law, Testing of Build 7a candidate release of IM V1.7.0.0, September

10, 2016)

## CCB-164 - Display Settings not required for images See <https://pds-jira.jpl.nasa.gov/browse/CCB-164>

This is back on the agenda because our last discussion was confusing. Ron's notes say we need a new SCR and to put this on hold.

~ Yes.

~ There's no such thing as on hold. We can withdraw it.

There were changes proposed - we decided to put CCB-164 on hold until we could decide if the proposed changes were a good thing. Steve was going to think about it too.

Question: You think Steve is actively on this?

Answer: Someone discussed it with him last week.

So this goes away until someone decides to bring it back.

~ Anne does not have time to work on it, to do the analysis.

~ Someone says that Steve said something about trying to develop the composite structure and using it.

Considering that CCB-164 is for display settings class - more than one for multiples, and when one display settings class and one or more objects, the question is if a reference class can reference more than one thing at a time could be a separate SCR.

Regarding the composite structure thing - someone reports that Steve won't bring it to the table. He was hoping someone else would. It may never see the light of day.

Steve's action item was to consider change to local internal reference from a more global perspective.

~ Someone agrees.



Question: Did Steve actually agree to take that action item? Someone is confused. Can someone send email to Steve that says we believe you took an action item to do blah. In the meantime, this will go away from the agenda.

Answer: So, it's on hold until the peripheral issues are sorted out.

**\*\*Action Item - Ed\*\*** will email Steve to clarify his action item from the last telecon.

**## CCB-166 - Deprecate bit mask from IM**

See <https://pds-jira.jpl.nasa.gov/browse/CCB-166>

Jordan is not here. Wants us to wait for him to discuss this. Might join the call today. Unsure.

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

Steve sent emails to the DDWG on the impacts of the two options. Two weeks ago he had an action item to present the two possible implementations to the DDWG. He sent email.

(See from J. Hughes, CCB-162 - need assessment of impact on IM, September 28, 2016)

Someone exchanged email with Steve about this. Big concern is that option 2 is not backwards compatible. Doesn't understand everything but will vote against the non-backwards compatible change.

Question: Can we have more time to review this?

Answer: Sure.

Answer and Another Question: Fine, but is it that nothing that is non-backwards compatible is okay with you? You can always validate against an older version.

~ Yes, but at the tech session last week was asked if PDS4 and others moved to version 2 if he would too. He'll be screwed if that happens and he has to migrate. Downstream it could kick him in the behind.

~ Understood, but don't think we'd be forcing people to migrate in PDS4.

~ At the tech session, during the coffee break, someone pointed out that we may have to move.

Version 1 was supposed to be where we get the cobwebs out of the system. Moving to version 2 would be a lot of work.

~ Someone agrees. Doesn't think there's any rule that we have to move to version 2.

Someone would feel better if there was an MC policy that we don't have to migrate, but doubts we'll get that so would prefer minimizing non-backwards compatible changes except for bugs.

~ Maybe we could ask the MC to make a policy. There will be lots of PDS3 that will never be migrated to PDS4. It's not required. Will take that to node management.

~ Go for it.

Question: Anything else on CCB-162?

Another Question: How would the non-backwards compatible solution be more preferable?

Answer: It puts the Md5 checksum at the top of the heap. With other option it's down a level in the subclasses. Less than optimum.

~ It's not pretty, but backwards compatible. Need to decide what's more important.

There's an issue for people who have already used it in object statistics.

~ Not a problem until version 2. It's only deprecated in version 1.

~ There may be clashes. Not sure how validation would work.

~ It wouldn't - not writing validation for things that are deprecated.

~ In 1.8 this would be scrambled at the object statistics level.

Question: Why not call it something else? Like DO-md5 checksum? It would keep it backwards compatible. Pretty is not a good enough argument to over step backwards compatibility.

Answer: Someone will send their suggestion to node management - see what happens with the MC.

Question: Is there more on this?

Answer: (Silence)

~ Jordan still isn't here.

## Two SCRs that have lingered

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

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

There are two SCRs that have lingered, CCB-131 and 138. One had a working group around March. Decided these were going away until people stepped up to lead the efforts. Bringing it up now to see if anyone will step up or if we want to invoke the sunset clause.

CCB-138 is another one like the instrument types one. If we are really going to try to solve it we may need to re-open the instrument type question too. The whole type thing.

Question: Anyone else? Do we want a real work group or to put it away?

Answer: We need solutions for the other type lists too. Hodgepodge. The criteria isn't clear for observation type component - couldn't do anything until instrument type settled.

Question: Does the work group want to reform? It was Anne, Steve, Dick, Jordan and Ron.

Answer: Someone can't do anything this year.

~ That's why it went away.

~ If it needs to sit around cause there's no time, than it has to sit around. Feel free to tell the MC.

~ It could go to the Roadmap team.

~ That's still the same people who don't have time now.

~ Maybe we need to let Ralph know we're having trouble with this.

~ Not sure this qualifies as a failure. It's not urgent. Many of us have full plates for the next few months.

We should put this aside for now. Can't do everything at once. This isn't an urgent task.

We should keep this on hold.

~ Someone agrees. Sun-setting it won't make it go away. It's one of several problems with type class issues.

Someone likes the idea of sending it to the Roadmap team, but not sure how that would work.

**\*\*Action Item - Dick\*\*** will send them an email.

So this is on hold.

CCB-131 is the same thing, but there wasn't a work group.

~ Important points were raised, but not sure how to define special constants for binary. We really beat ourselves over the head with the bases - same issue with binary tables - how you set the special constants.

~ Someone would set the special constants to be integers - no fractional parts - could then test and get the right answer. Values will work. PDS software will have to specify how it does the tests.

Tool should say what it will assume. Can suggest and try to enforce or try to provide patterns to match.

Think we need to decide how many options can be supported and then tell DPs what options they have.

Willing to hear from tool developers what options are okay. Think DPs just want to be told by the tool programmers.

Question: Is it safe to assume that SBN doesn't have time for this now either? Lev?

Answer: Can ask Lev or maybe a PSI programmer.

**\*\*Action Item - Ron\*\*** will send email to **\*\*Anne\*\*** to remind her to ask.

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We're at the end of the agenda. If there are any SCRs people would like to discuss...

~ Someone has a topic for us to think about. Will probably go to the MC. So, someone met with the guys

from the ADS database regarding citations and how they will work for PDS4. We're in good shape, but the question is DOIs. ADS uses them. MC never reached a conclusion on them. Need to come to some decision on that.

Question: Any questions?

Answer: Someone thought the MC did discuss it.

~ Yes, but no decision was made.

~ Thought EN was going to do a prototype.

~ Yes. It was brought up at the meeting in St. Louis. There was a decision, but nothing came of it.

It's important to decide what level we would want DOIs for.

~ Someone thinks for thinks for collections because we have to pay for them.

Regarding DOIs, we went so far as to find an institution.

~ Datacite.

~ It was very inexpensive- was going to do a prototype with an IMG mission. Didn't ask others to do it too.

ADS has revamped their site. Can get searchable statistics for PDS if we can connect the dots. Get metrics.

Jordan is here now.

Question to Jordan: Do you remember DOIs from two years ago?

Answer: No idea.

Question: Anyone want to be a prototype candidate for this? Sort of a research thing. Made account, but need products to attach DOIs to.

Answer: Maybe Mars Pathfinder, but going to be out awhile.

~ By the end of the year would be good.

Another Question: Okay to test with migrated data?

Answer: Yes. Just needs to be registered. ADS has broken links now. Sent email to Dan about it.

## Back to CCB-166

Was willing to remove bit mask, but than someone wanted the SCR on hold while we decided about packed data.

~ No, IMG can handle it in their LDD. It's two different things.

Question: So is it okay to get rid of bit mask?

Answer: Not sure of all the history. It's a very old keyword from PDS1 - for Univax and such.

~ Will change the SCR to say deprecate bit mask so we can vote later.

~ Bit mask was an IMG keyword. If they don't need it probably no one else does either.

\*\*Action Item - Jordan\*\* will update the SCR to say deprecate.

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Question: Can we go back to every other week?

Answer: Ed won't be here. Susie can attend.

Another Answer: Mitch is only available every other week.

Another Answer: If the next meeting is October 13 Dick will miss it - then the following week is DPS.

We went to every week because there were so many issues to solve while trying to make the build. That part is gone. The question is if there are enough urgent issues to continue meeting every week.

Some people may miss meetings, but that happens anyway.

~ Someone agrees. Every other week.

~ Someone else agrees.

~ Sold.