

## **Meeting Minutes from the DDWG-2 telecons:**

DDWG Notes 2017-02-16

DDWG Notes 2017-03-09

DDWG Notes 2017-03-23

DDWG Notes 2017-04-06

DDWG Notes 2017-04-27

DDWG Notes 2017-05-11

DDWG Notes 2017-05-25

DDWG Notes 2017-06-08

DDWG Notes 2017-06-22

DDWG Notes 2017-07-06

DDWG Notes 2017-07-13

DDWG Notes 2017-07-20

DDWG Notes 2017-07-27

DDWG Notes 2017-08-03

DDWG Notes 2017-08-24

DDWG Notes 2017-09-07

DDWG Notes 2017-10-12

DDWG Notes 2017-10-26

DDWG Notes 2017-11-09

DDWG Notes 2017-11-16

DDWG Notes 2017-12-07

DDWG Notes 2017-12-21

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date: 2017-02-16

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# February 16, 2017

Notes by Debra Kazden

Known Attendees:

M. Banks, M. Gordon, E. Guinness, S. Hardman, L. Huber, S. Hughes, C. Isbell, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, T. Morgan, L. Nagdimunov, L. Neckrase, J. Padams, A. Raugh, B. Semenov, R. Simpson, J. Stone and Christine from IMG

## Notice sent before the telecon in email from R. Joyner - February 14, 2017

CCB/SCR Statuses:

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- None

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

(1) Please review, be prepared to discuss, and possibly vote -- should the complete TA be ready:

- CCB-171: Split hardware-compatible ASCII numeric types from the unbounded (L.Nagdimunov)
    - 20161012: Requested Lev provide cogent statement of the issue to be resolved; send to DDWG to start email exchange & discussion
      - lots of email discussion; inconclusive as to whether issue is converging or diverging ?
    - 20161026: Can a problem statement be written into an SCR where there is some measure of certainty that this is the issue to be resolved ?
      - at least one email questioning whether this issue is worth the time / effort to discuss / resolve
  - 20161109: Lev requested another week to work issue; before additional DDWG discussion
  - 20170103: Open & Under DDWG review
  - 20170105: request Steve and DocWritingTeam to TA by end-of-next-week
    - DWT TA provided; waiting on IM TA
  - 20170131: Lev to update SCR and resolve liens identified in TA; not ready for vote
  - 20170202: Resolution dependencies:
    - CCB-131; resolution has dependency on CCB-171
    - CCB-170; in wait-state until CCB-131 is resolved; CCB-131 in wait-state until CCB-171 resolved
    - 20170214: Lev & Simpson not converging; Lev to revise SCR, advise when ready so that TAs can be done by R.Simpson & S.Hughes
- \*\*(Discussed - Voted to endorse the SCR as written)\*\*

(2) Please review and be prepared to discuss:

- CCB-172: Add movie format(s) to list of acceptable documents (L.Huber)

- 20170126: Open & Under DDWG review
- 20170213: R.Joyner sent emails about 2015 version of the "movie" standard -- ISO-IEC 14496-12  
 \*\*(Discussed)\*\*
- CCB-173: Modify Product Update (M.Gordon)
  - 20161109: Mitch sent out Product Update email; send to DDWG to start email exchange & discussion
  - 20161129: Mitch to send out example(s)
  - 20170131: Mitch to submit as SCR
  - 20170214: CCB-173 - Modify Product Update (M.Gordon)
    - not fully TA'd.

### (3) Email exchanges and other stuff

- PDS4 equivalent for the PDS3 keyword SOURCE PRODUCT ID (S.Slavney / J.Padams)
  - 20161129: Open; under DDWG discussion; form WG
  - 20170105: A.Rough emailed two PDS3 citation examples to DDWG
  - 20170117: formed WG: Jordan, Ed.G, RJ
  - 20170214: J.Padams agreed to provide example(s) -- low priority...  
 \*\*(Not Discussed)\*\*
- Composite Structure (S.Hughes)
  - 20170202: Open; under DDWG discussion
    - review email & attachments from S.Hughes; sent 20170129
  - 20170202: DDWG agreed that S.Hughes can draft SCR
  - 20170214: SCR as yet not submitted to JIRA

### (4) DDWG(2) -- initial telecom (M.Gordon / R.Joyner)

- availability to meet Thurs Feb 21 @ 9:30 ?  
 \*\*(Discussed)\*\*

### # DDWG Telecon

We have a full house today. Something that is not on the agenda is that JPL is moving WebEx to the cloud. This is the last meeting with this list of instructions. New instructions are coming. We will also be migrating to DDWG2.

## CCB-171 - Split hardware-compatible ASCII numeric types from the unbounded See <https://pds-jira.jpl.nasa.gov/browse/CCB-171>

People have been working on this - not converging.

~ This would take ASCII Real and ASCII Integer and make two new classes. ASCII Real unbounded etc. The Integers would be strings. Reals could be represented in binary. Thinks what has been hammered out will work, but concerned. Sent email to EN for help/input. Proposed that ASCII Real be bounded. Than there would also be unbounded. There's an issue with the names, classes, subclasses.

~ EN did answer regarding the naming convention. Thinks the team should decide. (Email was sent on the subject, but it did not go to the entire DDWG.) Wondered if the effort is worth the benefit.

Doesn't think it's necessary. Doesn't think a class hierarchy is necessary.

Question: So are we happy with the SCR as written?

Answer: It will work, but it makes the model unnecessarily messy.

Another Question: Functional?

Answer: Yes.

SCR author would like to thank people for their help with this SCR. Regarding specific issues - class hierarchy - we have one, so followed that. Regarding naming - followed what we had for ASCII non-negative integer. Picked what was short and what author thought people will usually use. Kept most common, simple. Thinks this SCR solves a critical issue because we're looking at more complicated structures and we have a simple type that software can't read. Strikes author as a fundamental issue. All types should be readable by tools.

The TA still has two liens. One was min/max.

~ The issue was original SCR didn't say things were inclusive. Added about a month ago.

Question: Is it okay to remove that lien?

Answer: Think so. Requested changes is what the TA looks at.

Question: Any objections to voting on this? As written or amend to remove the lien?

Another Question: Is everything there?

Answer: Yes, as far as author is concerned.

~ Okay to remove the lien.

Question: Are people ready to vote?

Answer: (Silence)

\*\*The Vote to endorse CCB-171 as written:

RS - Abstaining

ATMOS - Yes\*\* (Comment that ATMOS continues to see this as a solution in search of a problem) \*\*EN - Yes IMG - Yes GEO - Yes PPI - Yes NAIF - Abstain Rings - Yes IPDA - Not Here SBN - Yes\*\*

Clearly, this passes. We are good. Yay for our team.

## Product Update

CCB-173 - Modify Product Update. See <https://pds-jira.jpl.nasa.gov/browse/CCB-173>

This is another interesting one. There has been a lot of email back and forth on this. The comments in the emails were consolidated. Responses were sent. There were still some objections. Believes it is resolved now, but there are three issues to discuss. They were items 6, 7 and 8 in emails. (See attachment "Email-comments-responses" in email from M. Gordon, "RE: urgent - Product Update SCR 173 is posted", February 15, 2017 11:09 AM). Regarding number 8 - headers required in tables, it's optional. As to limitations on what people can't do - two people said it was impossible and that it is the responsibility of the nodes to keep bad people from doing bad things. The reference list/internal reference are redundant because primary member of the collection.

Question: Leave in? Deprecate? Take out? Comments?

Answer: Someone has lots of comments. Looked at all the documents that were produced and the comments and TA. Thinks this would have a moderate impact on the DPH. We need to tell people when to use this. Concerned about example that uses phase angel - if we want to think of this as a virtual label and we add something like phase angel not sure it stays valid. Wants to know how we would test that. Also not sure how the system or users would use product updates.

Question: Anyone else?

Answer: A lot of this is better discussed by email, but looked briefly at the revised SCR, thinks some could be revised again with time and effort. The example in the SCR is very long - that's a big problem. Still contend that this should be limited in the SR to say what is required, not just the DPH. Still confused by some of the text and what to do if replacing or adding a keyword that repeats. If we use this, potentially could have a tool to update the whole label and re-post it - not have to download two.  
~ Thanks.

Question: Anyone else?

Answer: Someone's issue is that they are not clear on the distinction between metadata that is archival versus service metadata. Not sure which tells you where to find the data. Concerned that there isn't a clear distinction. When you add archival metadata, someone doesn't see a clear path to peer review and no clear binding to the IM when adding new contexts - like new targets. If newly added, might need new contexts in label. Some values might be null and not pass validation. Concerned about provenance, accountability and tracing.

We are not ready to vote at this time, even on if internal reference should be included.

~ Agreement. Some of this has just come to light.

Question: Is there a particular urgency for this?

Answer: No, but it's been around an embarrassingly long time. No mission driving this.

~ You describe a real useful purpose for something - when the team may provide more metadata. Valid reason to have something. Not sure the current IM prevents adding a table.

~ True.

~ Main concern is how this will work in practice.

~ Agreement. This is valuable, but unsure how to write a tailored SCR.

~ Someone likes how this is progressing. Doesn't see the need to tie product update to the labels. Also agrees we need tighter rules for the SR.

Someone hopes that if this is fully implemented that NSSDCA will receive it as part of the bundle.

~ It's a product like any other.

~ Just wanted to make sure.

## CCB-172: Add movie format(s) to list of acceptable documents See <https://pds-jira.jpl.nasa.gov/browse/CCB-172>

The ISO standard was looked at and found to not be terribly helpful. There have been some ideas on how to improve this. MOV format is in fact a subset of MPEG4, but there are free converters. Easily made more generic. Would modify this to say we only accept MPEG4 - not sure what part of ISO standard to reference.

~ There is a part that specifically defines MPEG4.

~ We need a specific revision. Complicated.

~ Someone isn't sure that's true.

Someone has some concerns - glad we are moving away from MOV since it's kind of tied to Apple, but understands these are containers. Could be video, voice, other things. Concern is we pick something - say it's MPEG4, but not sure how we test for that. Might be nice to have tools to read conversions. Need to document that. MOV is not on the approved list of data formats. That would need to be approved by the MC.

~ This is for document.

~ Still has to go to the MC. Not sure if it should go to them first or to the CCB first.

~ CCB first. They can send it to the MC.

We can't vote or tell our managers to vote for a standard we can't read. If JPL won't share we might need to ask HQ. Not sure we want to require everyone to buy this. Concerned.

~ It would be nice to have the standard. Talked to experts and they suggested we pick raw video and raw audio or pick a very common codex so maybe it will still be in use in the future. One for audio, one for video. Said they wouldn't use the audio standard wave format. They said raw audio is better. Need a copy of the standard.

Question: Is management here?

Answer: Yes.

Another Question: Can you get a copy of the standard?

Answered with a Question: Why can't JPL?

Answer: JPL can't distribute it. Costs 200\$ per part. Has about 14 parts. If every node has to buy its own copy it could be very expensive. Might be cheaper to fly everyone who needs to read it to JPL.

~ Or to Switzerland. Since some of you love to travel. Didn't realize it cost so much. Was thinking of getting a copy, but not sure about getting 11 copies.

JPL is not being intentionally obstructionist. Restrictions are from the document license.

~ If they didn't buy it for PDS, fine. But we still can't vote to adopt a standard we haven't read.

~ Someone would be okay if a technical person read it and said it was okay. Someone who could report to the group.

~ IMG was going to look.

~ IMG will look, but still concerned about it being a container. Thinks picking a codec is reasonable, but concerned over those changing.

~ Someone else is concerned over being able to convert to new tools.

~ Some of this is very complicated.

Question: Is this still the issue from ATMOS?

Answer: Yes.

~ Yes, but it will be an issue for other nodes, especially with PDART.

~ Yes, there's a need as soon as it can be implemented.

Animated GIF is another idea.

~ Thought that would be like a cartoon. Maybe they are more sophisticated than I think.

~ You can make a high quality GIF.

Question: Is there a limit on the color table?

Answer: Unsure. Can get an expert to attend the next DDWG.

Question: Audio? Do we need that alone or just video with audio? That impacts the solution.

Answer: Someone thinks that for one of the Apollo restorations that we have movies with voice from the surface of the moon. Wouldn't rule it out.

~ As document - then it could maybe have video with someone explaining things like geometry or calibrations with a wipe board.

~ It should supplement text form, not replace it.

Question: Is there anything else on this?

Answer: **\*\*Action Item - Anne and Lev\*\*** will figure out what parts of the standard we need to read and let Tom know what we need.

Technically, the idea of audio doesn't rule out GIF. Could have a GIF and an audio file.

Question: Do we need a face to face?

Answer: That's DDWG2. A new management structure.

## ## DDWG2

DDWG2 was discussed on the MC telecon on Monday.

~ Many of us are not on that telecon.

~ Your bosses were. Not sure what to say. Maybe we need to send the packages from Dan.

Someone can give a brief summary. Several months ago Dan was tasked with looking at ways to streamline the DDWG. Mitch was roped in on the trail balloon. The new DDWG charter has formalized the DDWG again. The function is changing. Emphasis is on the changing process for SCRs and tiger teams. There's a lot more. The DDWG won't be a long conversation. Will just meet to monitor progress. One voting member per node - RS and IPDA too. Some non-voting members, PDS projects, NSSDC. A shift in how things are being done. It all changes next week. Invitations will go to node representatives.

Someone read the charter. Non-voting membership is not exclusive. Didn't think this was only going to be for voting members.

This is to control and monitor SCRs. We need someone who can be responsible and be pointed to. You won't be excluded.

Someone thought this was all clear from the MC telecon. The focus is on SCRs and tiger teams. Getting quickness in our responses.

We're ahead in the agenda. Feb 23 will be the launch.

Question: Of the people listed - is there anyone who can not attend?

Answer: Someone wasn't planning on it - unsure.

Question: To clarify, if you are on the list - do you know?

Answer: Your manager should have told you.

~ IMG person is Jordan. That was just confirmed.

~ Someone thought managers would have informed people.

Question: Should the presentation from the MC be sent out?

Answer: No. It will be launched to people who should be in the know.

Question: Anyone on the voting or non-voting list unable to attend? WebEx will have whole new log in.

Answer: IMG can be there at 10:00.

~ We will move the meeting back a half hour. It won't be long.

Question: Is 10:00 okay?

Answer: Fine with GEO, but RS unsure they can attend.

That takes us to the end our hour.

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Question: Spectral LDD for the next regular DDWG?

Answer: Yes. In two weeks. Material can be sent to anyone interested.

**\*\*Action Item - email Anne if interested in receiving Spectral LDD information.\*\***

Question: Anything else?

Answer: Someone asked Tom Stein for an extension to get things to the CCB. We voted to have CCB-171 go through. Not sure if there are others.

Someone will tell Tom Stein the final hoops for CCB-171 are being worked.

~ Emily can still say no.

~ Tom has heard - he walked by someone's office. Should still be told.

Question: Everybody done?

Answer: We need to give Ron an honorary gold watch for his service.

~ Ron will take a lollipop.



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# March 9, 2017

Notes by Debra Kazden

Known Attendees:

M. Banks, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, J. Padams, A. Raugh and B. Semenov

(Observers: M. Liukis, L. Nagdimunov and L. Neckrase)

## Email sent March 7, 2017 from R. Joyner: DDWG2 telecon announcement - Thurs 2/23 @9:30am

Included four attachments:

CCB-172.xlsx

CCB-174.xlsx

CCB-176.xlsx

agenda-2017-03-09.txt

## DDWG Agenda March 9, 2017

If you will not be attending, pass this information to your alternate.

Please review the SCRs in the agenda before the telecon.

1. Review new SCR and set priority, effort, type, target build, tiger team

--CCB-176 - Update Node names in the IM

\*\*(Discussed)\*\*

2. Review

--CCB-172 - Add movie format(s) to list of acceptable documents

Priority:urgent, Effort:Medium, Type:enhancement, Target Build: Sept 2017

Status - Identify specific movie types (mpeg4?). Awaiting ISO standards access?

Identify tiger team? Next steps? milestones?

\*\*(Discussed)\*\*

--CCB-174 - Add the Composite Structure class

Priority:normal, Effort:high, Type:new feature, Target Build:Sept 2017

Confirm target build, discuss possible issues (below); identify tiger team;

Possible issues. This SCR proposes one major change

--add the new class Composite Structure

CCB-174 proposes two "optional" additional changes:

-- convert the data type of internal label identifiers and references,

e.g., local identifier and local identifier reference to xs:ID

and xs:IDREF. This change would allow XML Schema to validate referential integrity in the label. (probably affects CCB-156 too)

-- local identifier as optional attributes to Display Settings, the spectral dictionary classes, etc. This allows additional specific relationships to be defined between the composite structures and discipline/mission level dictionaries. (The Display Settings class is in the imaging dictionary.)

Should we request the SCR be broken into three separate SCRs?

**(Discussed)**

## ## DDWG Telecon

There is a request that there's an actual link to WebEx in the meeting announcement.

~ A URL will be sent next time. Hopefully people will keep it and it won't have to be sent each meeting.

The Newest NAIF person is on the call today. Marsha Liukis. She will be a butterfly on the wall.

The chair intends this to be a quick meeting. The first agenda item is a new SCR to set priority, level of effort etc. This will be the first time we do the process described in the process document for a new SCR.

~ Not everyone saw the agenda.

~ An email with several attachments including spreadsheets for the SCRs and the agenda went out. (see above)

## ## CCB-176 - Update Node names in the IM

See <https://pds-jira.jpl.nasa.gov/browse/CCB-176>

A spreadsheet for this SCR was sent with the agenda. It was filled in. Assumes everyone looked at it. The issue is that the PDS phone book hasn't been updated to include the new names for some of the nodes. "Imaging" should be changed to "Cartography and Imaging Sciences" and "Rings" should be changed to "Ring-Moon Systems". This SCR makes the change to populate the phone book with the correct values. Also context products. Someone has already commented on it in jira. Priority is normal. Level of effort is low, it's pretty trivial. The type is a change to a few enumerated values, so a bug fix.

Someone thinks it's more than one change in the IM. Still trivial, but there's more than one change.

~ Maybe two changes.

~ Affiliation and node.

~ Change the enumerated list for attribute name in node class and value and team name in pds affiliate class.

~ Also maybe changes in Ingest LDD for stewards.

~ That's my point. (More than one change)

This is implementation. We're looking at priority. It should be low. Let the tiger team work out the details.

Someone is still not convinced it's low. Wants to know if any of the things affected by this change are registered. Might have to deal with the implications of that and swapping out search terms. Hopes it's a low level of effort, but might be medium if we need software solutions for legacy values that are there.

Summary: Need to know if there are legacy values in the registry that have to be handled specially. If no, we can go with a blanket change - low effort. If it requires more work, then medium.

~ Noted. We'll leave it there.

~ Don't forget documentation changes.

At this point we will recommend low until the tiger team looks at it. Bug fix.

~ Not a bug fix, a change or enhancement. It wasn't an error.

~ We will call it a change.

Question: What nodes will produce the tiger team members?

Answered with another Question: EN?

EN: Fine, but also wants a science node.

~ EN and Rings, since Mitch submitted it. This is probably sufficient.

Question: Is the SCR reporter required to be on the tiger team?

Answer: There's no requirement for the person who found the problem to find the solution. Not a requirement, but they can volunteer.

~ They might be involved at the far end.

~ There's been an issue with SCRs where the suggested changes in the SCRs aren't always complete.

Would like more participation from SCR reporters.

(In email after the telecon Note-taker contacted speaker to make sure entire concern was captured.

Email response was: " My comment was to the effect that since

the reporter identified the problem their perspective could be useful during TT deliberations. I agree that sometimes the reporter identifies something obvious

and their involvement is not necessary. Or they might not understand the issue. However we frequently

have cases where a reporter states a problem that is not

so obvious or is controversial. In these cases the reporter should be strongly "encouraged" to be a part of the TT.")

They are encouraged, but not required.

We have two more SCRs to discuss. There is a new one, CCB-177, which we won't discuss today.

## CCB-172 - Add movie format(s) to list of acceptable documents

See <https://pds-jira.jpl.nasa.gov/browse/CCB-172>

The emphasis is on documents. This is not for observational products.

We paused and took a deep breath on this. Waiting for a copy of the ISO standard from Tom. No response yet.

~ He's working on it.

This is on hold until we get a copy of the standard.

~ Correct, but we can make some changes. Did some research - it's easy to convert to generic MP4. We should be able to edit the SCR to reflect that we want the generic MP4 format. Should be all we need to do at this point.

Question: Who is on the tiger team?

Answer: Lyle, Ron, Ed. We need an IMG person.

~ Jordan and maybe someone with more expertise. Probably Jordan and another.

~ Lyle is the tiger team leader.

**\*\*Action Item - Maria\*\*** Please emphasize to Tom that we are stuck until he can get the appropriate ISO standard. Contact Lyle for help.

Question: Any Comments?

Answer: To address comments in jira - this is about documentation only.

## CCB-174 - Add the Composite Structure class

See <https://pds-jira.jpl.nasa.gov/browse/CCB-174>

This one has issues. The priority is urgent. The level of effort is (identified as) medium, but might be high, it's defiantly an enhancement. Likes the target build for September 2017, but thinks the SCR is too big. It introduces a new class - composite structure and also has two optional changes. It could be broken into new SCRs. The optional changes are convert the data type of internal label identifiers and references, e.g., local identifier and local identifier reference to xs:ID and xs:IDREF (which would allow XML Schema to validate referential integrity in the label) and local identifier as optional attributes for discipline dictionaries, the spectral dictionary classes, etc. This allows additional specific relationships to be defined between the composite structures and discipline/mission level dictionaries. Not sure how we would handle the changes to discipline DDs. Global, not node, PDS wide. Unsure how we change that.

~ Agreement that this is complex. Proposed changes to DDs could be separate. It was included to show how it would work. Regarding local identifiers and data types, it would depend on the decision to either change terms or add new ones. Could be a separate SCR, but there could be some connections.

~ A separate SCR is a good idea because not being validated. There are two ways we could validate, but neither being done.

~ This proposed change has been around for years. Elizabeth wanted it. Initial prototyping was done. Has minor impact. Could be a very simple SCR.

**\*\*Action Item - Steve\*\*** take CCB-174 and write three SCRs.

No, it should be two new SCRs. DD steward can make the changes in DD once composite structure is approved.

~ Concern about ownership of Display DD, so good with having an SCR for this.

~ But that gets the CCB involved.

Question: Is that a bad idea?

Answer: People were against putting DDs through the CCB in the past.

~ We don't need to capture potential changes to global DDs. Steve is off the hook - we only need two SCRs from him. **\*\* (Action Item - Steve) \*\***

This moves to the next meeting.

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We will meet bi-weekly.

Ron may be on vacation next time.

Question: Anything else?

Answer: (Silence)

Announcements/agenda will come out on Tuesdays. Anything in by then will be discussed.

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# March 23, 2017

Notes by Debra Kazden

Known Attendees:

M. Banks, M. Gordon, E. Guinness, S. Hughes, D. Kazden, T. Lim, J. Mafi, S. McLaughlin and J. Padams  
(Observers: M. Liukis)

## Email sent March 21, 2017 from M. Gordon: DDWG2 telecon announcement - Thurs 3/23 @9:30am

Included 6 attachments:

agenda-2017-03-23.txt (agenda was replaced in a later email that same day) CCB-131-20170321.xlsx

CCB-176-20170316.xlsx 00-CCB-Summary-B-2017-03-21.xlsx CCB-156-20170321.xlsx CCB-177-

20170321.xlsx

## DDWG Agenda March 23, 2017

If you will not be attending, pass this information to your alternate.

Tasks to be completed before the telecon - review SCRs CCB-131, CCB-156, CCB-176, CCB-177, and the attached summary spreadsheet.

Detailed agenda and tasks:

1) Review new SCRs

1a. CCB-177 - Specify source products and processing history

set priority, effort, type, target build, tiger team

\*\*(Discussed)\*\*

1b. CCB-176 - Update Node names in the IM

Review TT milestones

\*\*(Discussed)\*\*

2) Review

2a. CCB-174 Skip this week, pending the rewrite we requested.

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

2b. CCB-156 - LDD Inconsistencies w/r Local Internal Reference, etc.

Priority:urgent, Effort:medium, Type:enhancement, Target Build:Sept 2017

Ed and Steve did the initial reviews.

Ed: "It seems to me that the common model was changed to expose Local Internal Reference, Internal Reference, and External Reference in version 1.7.0.0. The release notes say that the change was

considered a bug fix. However, JIRA says CCB-156 is open and under DDWG review. So, what is needed to finish out this SCR? I would think that some document(s) on creating LDDs needs to explain how to use these classes. Also, existing discipline and missions dictionaries should be reviewed and probably revised by their stewards to conform to current usage of these classes."

Steve: "The SCR raised several issues. However there is one issue that is now being worked and that might make the others moot. Early during PDS4 development Elizabeth R. suggested that we change the data types of local identifier and local identifier reference to xs:ID and xs:IDREF respectively. Anne in this SCR also suggests this change. I also think it is a good idea."

Are the values for Priority, etc. reasonable?

Steve's point will be addressed with an SCR following from the revision of CCB-174. However, Ed's point that we need consistent implementation across LDDs would seem to imply a Tiger Team to

- a) establish milestones
- b) review current usage in all existing LDDs
- c) identify appropriate documentation
- d) rewrite affected portions of the SCR, or propose closing the SCR if appropriate
- e)?

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

#### 2c. CCB-131 Missing Constraints on Special Constants Attributes

Priority:normal, Effort:medium, Type:constraint, Target Build:Sept 2017

TT: Simpson, Stone

This SCR was on hold pending the outcome of CCB-171 which has now been approved by the CCB.

Dick did the initial CCB-131 assessment: (Previously) "SBN participants in DDWG telecon (Rough and Nagdimunov) could not agree that recommendation met SBN's needs.

Stone was not on the call. SBN personnel to discuss and report result to DDWG."

Are the values for Priority, etc. reasonable? Do we need any changes to the TT? What actions do we need from the TT? 1. Establish milestones!

**\*\*(Very Brief Discussion)\*\***

3) Review the attached summary spreadsheet and determine the order for activating the "backburner" issues.

**\*\*(Discussed - Homework Assigned)\*\***

#### ## DDWG Telecon

People using Firefox had some trouble getting in, people with Chrome had better luck.

Small group today. No ATMOS, RS, SBN or Ron.

The agenda starts with two new SCRs.

## CCB-177 - Missing ability to specify source products and processing history See <https://pds-jira.jpl.nasa.gov/browse/CCB-177>

IMG put this in a few weeks ago. Had the preliminary vetting and triage, was found to have merit. Need to decide the priority, level of effort, type, build and team. Should go quickly.

Question: Priority medium?

Answer: No. InSight needs this or we need to create something in the IMG DD that we would have to deprecate later. Initial peer review is at the end of August, the delta is around launch - not sure when.  
~ Someone thinks launch is in spring.

(Email from Ed at 9:51a.m. reported that "The planned date is May 5, 2018 with a landing date of Nov 26, 2018")

Waiting until then is probably okay.

~ The catch is that the next build is in September - would need to be critical to make it.  
~ It's not critical, but needed sooner rather than later.

Question: Let's push the priority to high since there is need for a mission. Any objections?

Answer: (Silence)

Probably two solutions will come from the tiger team. This is not a hugely challenging task.

Question: Level of effort medium?

Answer: Sounds good.

~ Something has been implemented by PSA - will add comments to the jira ticket. ESA missions are already using this.

Level is medium, type is new feature. Target is September 2017.

Tiger team is encouraged to to implement something to test as soon as possible, maybe by July.

Question: Who needs to participate on the tiger team?

Answer: Ed will be on the team.

~ Tanya. Jordon will be the lead. Steve.

By early next week we would like to see milestones. Mitch will send the spreadsheet to the team

**\*\*(Action Item - Mitch)\*\***

GEO has had discussions on this issue. They have some ideas. Will send them to Jordon.

## CCB-176 - Update Node names in the IM See <https://pds-jira.jpl.nasa.gov/browse/CCB-176>

Mitch is the tiger team lead for this. The team is Mitch and Steve. They put milestones in their spreadsheet. First milestone is April 10.

Question: Any questions?

Answer: Yes. A general question. Some of the milestones are what would be expected in the tech assessment.



~ EN gets the first look at an SCR and decides if it has merit. Once that's done the tiger team has to come up with solutions, figure out how it affects the IM. This one is complicated. It changes a value in an enumerated list. The tiger team has to come up with all the answers and then the tech assessment looks to see if they got the right answers. We expect the tiger teams to do all the complicated work up front.

Someone reports that in the IM one of the attributes in a subclass of primary result summary can have a value of Imaging for the imaging node. The name of the imaging node is one of the values that this SCR is proposing to change.

~ EN has already alerted the team lead to this.

Question: Any other questions?

Answer: (Silence)

~

We hope to get CCB-174 back up and active. It is being worked on.

## CCB-156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al See <https://pds-jira.jpl.nasa.gov/browse/CCB-156>

There is a lot of information for this one in the agenda - hope everyone read it. Ed's points are very solid. The problem is mostly solved, but may need to change if CCB-178 is approved. We should begin looking at how close we are to implementing this across DDs. We really need a tiger team for this.

Question: Any comments?

Answer: Changes were just made to CCB-178 to change the internal references to XML ids/references (xs:ID and xs:IDREF). Have to be references for CCB-156. (See CCB-178 - Internal Reference Implementation - <https://pds-jira.jpl.nasa.gov/browse/CCB-178> ) ~ Yes, there is a dependency, but we can continue working. Reluctant to put CCB-156 on hold to wait for CCB-178.

Question: We're not really discussing the issues, but not sure we're making the DDs consistent. Is that SCR still open? Was it ever passed by the CCB? Did we make the change of exposing the classes?

Answer: Yes. What's left is to look at the LDDs to see if they are doing the local referencing correctly. We also need to identify what documentation needs to be done. It's mostly overcome.

Another Question: So the XSD stuff should be a separate request?

Answer and Another Question: Yes, CCB-178. This just looks at how the local reference used. It takes advantage of new exposed classes. Make a list for stewards. Shouldn't have to go to CCB unless documentation needs to be updated or written. That would go to the CCB for approval. Does this make sense?

Answer: (Silence)

Need people to review.

~ Someone understands and agrees. It's really to see how people are doing this and to update the documents.

~ Maybe we'll update the examples.

~ This brings up the question if we are going to have recommended practices when there are three different ways to do something.

~ For now we just want to see if some of the stewards need to update the DDs and if we need documentation.

Question: Volunteers?

Answer: Steve, SBN (being added even though they are not here).

~ GEO knows of three affected LDDs - the Geometry DD, Display DD (IMG) and Spectral DD (SBN).

~ The Rings DDs will be redone and will be compliant.

~ PPI has a bunch of DDs, all non-compliant. PPI will evaluate their LDDs.

Question: Who will be the team lead?

Answer: (Silence)

~ Will ask SBN.

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

This is from SBN. Not sure we can do much without them here. The priority is normal, level of effort is medium, tiger team is Dick and Jessie, build in September.

The problem is that SBN had problems with this, couldn't agree. We are putting this on hold for two weeks.

Question: Any objections?

Answer: (Silence)

## Agenda attachment 00-CCB-Summary-B

Hopefully everyone has looked at the spreadsheet.

The spreadsheet has columns labelled "CCB", "Depends on", "Status", "Topic", "Priority", "Effort", "Type", "Target Build" and "TT Lead". Today we made one urgent. We have a bunch for build 1.9. in September. Build 1.8 is now. We didn't discuss product update today, will discuss it next time. We have several SCRs in the queue and some waiting to get in the queue. We put CCB-131 on hold today. CCB-149 is now closed. We're ready to have some come into the queue.

**\*\*Homework\*\*** Pick five SCRs that we should begin working on. Give comments on what order the ones in the queue and with orange highlights should be dealt with. Send comments to Mitch by next week. Suggests we start with urgent ones.

Question: Everyone understand?

Answer: Yes. Comment - given that 174 is urgent, we need to make 178 urgent.

~ And 177.

~ Keeping the number 174 for the composite structure SCR.

We will work on CCB-178 next time. EN will look at it. It will pass with merit. We also need to start on other SCRs that we already have our hands on.

Question: Any Comments?

Answer: We still have a half hour left.

~ We will be able to get through all of this by the end of April. This is no longer a marathon telecon.

title: DDWG Notes 2017-04-06

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date: 2017-04-06

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# April 6, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, J. Padams, A. Raugh and B. Semenov

(Observers: M. Banks, C. De Cesare, S. Hardman, L. Nagdimunov, M. Liukis)

## Email sent April 4, 2017 from M. Gordon: DDWG2 telecon announcement - Thurs 4/6 @9:30am

Included five attachments:

CCB-131-20170404.xlsx

CCB-177-20170327.xlsx

CCB-000-date.xlsx

milestone-tracking-2017-04-04.xlsx

agenda-2017-04-06.txt

## DDWG Agenda April 6, 2017

If you will not be attending, pass this information to your alternate.

Tasks to be completed before the telecon:

- review the new SCRs CCB-178 through CCB-182.

For each of these we set priority, effort, type, target build, tiger team

-- The EN preliminary assessments are that CCB-180-182 are relatively minor minor bug fixes to the Standards Reference. While each will remain a unique SCR, propose we have one tiger team handle all three.

\*\*(Discussed all but CCB-181)\*\*

- review the attached TT assessment spreadsheets for CCB-131 & CCB-177.

In each case the TT has provided a set of milestones. Please check them for reasonableness and completeness. If there are no concerns we will not discuss them further in the telecon.

\*\*(Very Brief Mention)\*\*

- Be prepared to discuss CCB-153 & CCB-174.

-- Is the SCR sufficient to enable a Tiger Team to begin working it.

-- If so, we will identify members for the respective TTs.

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

- CCB-172 - Currently on hold for the acquisition of a relevant ISO Standard. The question is exactly what do we want?

Ron reviewed ISO/IEC 14496-12, fifth edition 2015-12-15. He perused the document (all 200+) pages, and reported back to the DDWG that there doesn't appear to be anything relevant (to the MPEG4 discussion) in the document.

At one point or another, "Imaging", Lyle, and or Anne and Lev, were going to attempt to identify a more relevant portion of the ISO standards. Where are we on that?

\*\*(Discussed)\*\*

- CCB-156 - LDD Inconsistencies w/r Local Internal Reference, etc. was on the agenda last telecon, but discussion was deferred. I'm delaying discussion again - until our next telecon.

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

# DDWG Telecon

## CCB-178 - Internal Reference Implementation See <https://pds-jira.jpl.nasa.gov/browse/CCB-178>

Still needs a spreadsheet.

Not everyone has seen this one yet.

This one has a lot of good positive reasons for it. It has been briefly vetted by EN. Priority suggestion is urgent since other things will depend on it.

~ It's a first domino.

Unsure on the level of effort because it's far reaching. Some documentation work too. Also unclear how big a deal it will be for Sean's group.

Question to Sean: Assuming the tiger team does the work, how much work will it be for you to implement?

Answer: Has the impression that there is inheritable support in the XML libraries.

~ Someone got the impression that the libraries are automatic. Doesn't think the current situation does validation of all the restraints in the SR now.

Possibility that xs:id has more restricted character set, maybe. Don't think updating the character set will affect users, but maybe LDD writers. Thinks the IM will be affected in small places. Thinks this is deceptively lower effort than we think, but need to make sure and do a lot of testing.

~ Agreement. Minimal development work, but testing.

~ This is a change to the IM.

Question: Level of effort?

Answer: Maybe low.

~ If the IM is being impacted, and it seems clear that some believe it needs to be, there could be a change to the restricted set of characters. Probably a minor change, but there's no data type yet. We would need a new one and we would need to figure out what schematron rules to remove.

~ The bulk of the work will be chasing down how it affects things/validation. The changes to the IM will be minimal, analysis will take work.

~ This should be medium level of effort because of the new data types.

~ Fair.

Question: Tiger team? Nodes? Who's playing?

Answer: EN will be on the team.

- ~ SBN prefers not to be the lead, worried about it getting lost, but will be on the team.
- ~ Suggestion that the Geometry or Cartography stewards should be involved.
- ~ GEO is willing to be in the loop, but isn't an expert. Could help contribute to the solution by testing.
- ~ This came from Elizabeth so an IMG person might be useful.
- ~ Chris is volunteered.
- ~ A Discipline DD might be a good test.

**\*\*Action Item - Mitch\*\*** will send the spreadsheet to Steve.

## CCB-179 - In PDS4 'pds' namespace, use ASCII NonNegative Integer where value must be >0 See <https://pds-jira.jpl.nasa.gov/browse/CCB-179>

From the comments, someone believes this will be simple, finding the impact straight forward, simple change.

~ Accounting.

Priority is medium, level of effort is low, and it's a change.

Question: Type options?

Answer: No real set.

- ~ CCB-178 to 182 address constraint.
- ~ Can live with that. Tiger team can put that as type and change things once they begin working.

Question: Team? SBN found the problem, but doesn't have to solve it.

Answer: (Silence)

- ~ This will be put on the back burner if no volunteers for the tiger team.
- ~ We could give it to Lev. A one person team. Would expect maybe a list of attributes in the core namespace that need to be redefined.
- ~ RS had made a comment in Jira.
- ~ He's in Germany. Will add him to the team if he wants to be on the team.
- ~ Lev can kick it back to us if he needs more participation.

## CCB-180 - Clarify whether namespace abbreviation in labels must correspond to namespace id See <https://pds-jira.jpl.nasa.gov/browse/CCB-180>

The title is logically ridiculous. The identifier is the long thing and the abbreviation is arbitrary.

~ The question is if you can use something other than the abbreviation. Thinks not and this is a one liner in documentation.

~ No, it requires validation.

Question: Beyond local data dictionaries?

Answer: Yes, all DDs.

~ IPDA volunteers for the tiger team.

This will have impact on the validation tools.

~ This will have a severe impact on PSA. Need to change things and make sure all documented.

~ No difference to software. No consequences now.

Could use an abbreviation for a different DD - could cause confusion.

~ Presumably, people would know what they were doing. The example shows a bad practice. Both abbreviations point to the same namespace. Shows how unimportant those abbreviations are.

~ GEO could point to Geometry DD or to GEO node. It could be confusing. Need to decide what to do about this and how to enforce.

Priority - would like to see this in the next build, so normal or medium. Level of effort is hopefully low.

~ It's high priority for the international nodes.

~ It's not low for PDS either. It requires coding and changes to validation. Continuous updating. Have to watch for overlap.

~ International nodes have several namespaces. Big impact for them.

~ This all has to be documented. Have to be able to input to validator.

If this is all for aesthetics, than we need a rule in the DDWG that anything that is aesthetics is not done. It's a waste of time.

~ The tiger team can recommend we don't do this, but it might not be aesthetics.

~ We need a big team so there can be lots of input.

Question: Volunteers?

Answer: Someone agrees that this is aesthetics and a waste of time. This should be done by humans, not machines.

~ Someone from PSI should be on the team.

~ PPI will be on the team.

~ IMG and EN too.

Question: Who will be the lead?

Answer: SBN will volunteer PSI, But they are new to the process.

~ IPDA (on the team) too new to the group to do it.

Question to ATMOS: How about being on the team so you can have your opinion heard?

Answer and Another Question: This is a waste of time. You want me to waste my time to serve on a tiger team to say that it's a waste of time?

Answer: It could be important for the team to have that voice.

~ Fine, put NAIF on too.

~ NAIF says fine, but we need a jira category that says aesthetics. The SCR not allowing a plus sign is aesthetics too.

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We are skipping CCB-181 this week.

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## CCB-182- Clarify whether CDATA is allowed See <https://pds-jira.jpl.nasa.gov/browse/CCB-182>

This is to clarify if CDATA is allowed. We need to hear from Sean.

~ Sean reports that he was told that he's completely against it a few years ago, but software supports it. Open to continuing to support it or could add a check to validation to not include it.

It's not a huge priority to get CDATA in now.

~ There could be a problem with greater than or less than signs. It probably will come up in the future.

No strong feeling - not enough experience.

~ No one has come to ATMOS asking to put those in.

~ PPI had some in MAVEN labels. Had to convert them.

~ It's like the double quotes in double quotes.

We might even get to a point where we would advertise this to users. We need a team. The priority is low, level of effort is low and it's a constraint.

Question: We allow UTF8, so what does this give us?

Answer: Ampersands, greater than, less than - have to escape them.

Another Question: So CDATA turns off the XML parser?

Answer: It reads the string as it was.

~ Sounds okay.

Question: Players for this?

Answer: PPI will be on the team.

~ Rings will also volunteer.

~ A leaderless team.

~ Mitch will lead.

Question: Anyone else?

Answer: (Silence)

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Would like to conclude the meeting soon. We will not discuss CCB-183 today.

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

The tiger team filled out the spreadsheet.

Question: Any comments? Any objections?

Answer: (Silence)

## CCB-177 - Missing ability to specify source products and processing history See <https://pds-jira.jpl.nasa.gov/browse/CCB-177>

Question: Any objections to this spreadsheet?

Answer: (Silence)

We will discuss CCB-131 and 177 spreadsheets at our next DDWG.

## CCB-172 - Add movie format(s) to list of acceptable documents See <https://pds-jira.jpl.nasa.gov/browse/CCB-172>

Mitch has been poking Tom with a stick to get the ISO standard for MPEG4. Ron says nothing relevant to the SCR. The question is what do we want. Looked back at the notes. IMG and SBN were going to look into it.

~ SBN volunteered to read the standard, but can't get it.

Question to Lyle: Have you heard anything?

Answer: No. Thought IMG was going to look.

IMG: Not sure exactly, don't remember. Did volunteer Moses for the tiger team, but didn't say he would lead.

~ The tiger team is Lyle, Ed, Ron, Moses and maybe others. We could punt to them - send the spreadsheet to them. We need a milestone to figure out exactly what standard we need. If we can get specifics, Mitch will pass it to Tom. **\*\*(Action Item)\*\***

Question: Can Moses or Jordan track down the standard?

Answer: They will try to discuss...

~ We just want to know what to purchase. Then SBN can read it.

---

We are skipping CCB-174 today. Will bring it up in three weeks. April 27 will be our next telecon.

---

Question: A bunch of tiger teams are going to need to query technical folks at the nodes. Is there a mailing list of technical people that we can use now?

Answered with Another Question: How about if the DDWG chair and coordinator send email to all of the members and members respond with name and email address of technical staff at each node. Then we can compile it all.

Answer: Not sure how that would work. At some nodes it could be more than one person. Maybe the tiger team should send notes to DDWG as needed. Not sure node folks would appreciate getting a bunch of email they have no context on.

~ Okay, so we could send email to nodes when we need an expert and be directed to the right person per issue.

~ Someone likes this suggestion. It might be useful, but understands it might be good to send the generated list to the DDWG too.

~ If we need to know who has the appropriate technical knowledge at each node, ask the node.

This will be thought about.

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Question: Any other questions before we hang up?

Answer: (Silence)



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date: 2017-04-27

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# April 27, 2017

Notes by Debra Kazden

Known Attendees:

E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson  
Observers: M. Banks, S. Hardman, C. Isbell (alternate for J. Padams), L. Nagdimunov, M. Liukis (alternate for B. Semenov) and M. Tiscareno (alternate for M. Gordon)

## Email sent April 25, 2017 from E. Guinness: DDWG agenda for 4/27/17 Included five attachments:

DDWG agenda.docx

CCB-156-20170417.xlsx

00-CCB-Summary-...ing-2017-04-18.xlsx

CCB-131-20170404.xlsx

CCB-178-20170421b.xlsx

## DDWG Agenda 4/27/2017

1.The following SCRs appear to be on track relative to the milestones established by their tiger teams (TT). We will not discuss these unless there are specific issues to note.

CCB-176 (Update Node Names)

CCB-177 (Source Product and Processing History)

CCB-182 (Clarify whether CDATA is allowed) \*\*(Very Brief Discussion)\*\*

2.Briefly discuss status of these SCRs relative to the TT milestones.

CCB-131 (Special Constants Attributes) – TT would like broader input from DDWG

CCB-156 (LDD Inconsistencies) – Level of effort may be higher than estimated

CCB-178 (internal reference attributes to xs:ID and xs:IDREF) – review milestones.

\*\*(Discussed)\*\*

3.The following SCRs need milestones to be established by their TT.

CCB-179 (use ASCII-nonnegative integer where value must be >0) – Lev lead

CCB-180 (Clarify whether namespace abbreviation in labels must correspond to namespace id) – Tanya lead

CCB-174 (Composite structure class) – Steve lead

\*\*(Discussed)\*\*

4.The following SCRs need tiger team and priorities established by DDWG.

CCB-153 (Additional description of packed data field in SR)

CCB-184 (xs:choice validation issue)

CCB-181 (Clarify whether newlines are allowed in PDS DSV 1)  
CCB-185 (Allow multiple instances of Primary Result Summary)  
\*\*(Discussed)\*\*

5. The following issue is listed as urgent, but needs to decide on ISO standard to request.

CCB-172 (Movie format(s) as documents)  
\*\*(Discussed)\*\*

# DDWG Telecon

Ed is hosting the meeting for the first time, to fill in for Mitch. Has guidelines from Mitch.

# Agenda - Section 1

The agenda is divided into five sections. The first section includes SCRs that are being worked and meeting milestones. They include \*\*CCB-176\*\* (Update Node Names), \*\*CCB-177\*\* (Source Product and Processing History) and \*\*CCB-182\*\* (Clarify whether CDATA is allowed)

Question: Any comment on any of these?

Answer: (Silence)

~ The teams will continue to work and bring any issues to the DDWG as needed.

Question: How do I file updates?

Answer: If you have the SCR spreadsheet you could update that.

~ There is concern over how to update 156.

~ We will discuss that one in a second, but you can update the spreadsheet and send it to Ed and Mitch.

# Agenda - Section 2

## CCB-156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al.  
See <https://pds-jira.jpl.nasa.gov/browse/CCB-156>

There was email from SBN that this might be more work than was originally estimated.

The team discussed this at the MC meeting last week. So far there are no surprises, but not out of the woods yet.

~ Team members will get their analysis to team lead soon.

Question: For any LDDs that are currently being updated, should we be considering this or waiting for the outcome?

Answer: Probably should be vaguely aware of it because it affects local internal references and such. Maybe we could talk on the phone if the LDD has an upcoming immediate release date, but if LDDs can wait until mid-May then they can wait.

Question: The team is looking at all the existing LDDs and will send out an update?

Answer: Yes, and EN is looking at the tools and doing internal analysis.

Question: Anything else on this?

Answer: (Silence)

## CCB-178 - Internal Reference Implementation See <https://pds-jira.jpl.nasa.gov/browse/CCB-178>

Spreadsheet has milestones. There has been initial discussion. Tested the implementation. The milestones are there - you can see them. Need to begin work on proposed changes for May 4 and then access the impact by May 11. The the DDWG can review and a final TA can be done. Optimistic about it. The milestones are mainly procedural.

Someone is unable to open the file, but thought they were on the team.

~ They are on the team.

~ Then surprised at not knowing about any of this.

~ Team is working on the process.

Question: Why doesn't the team leader send the milestones to the rest of the team to make sure everyone is okay with the schedule? Team is Steve, Anne, Ed and Chris. Send updates to Mitch and Ed.

Answer: A second team member also did not see it yet.

~ Team will all look at it and get comments to the team leader as soon as possible so they can update the spreadsheet. The milestones may be a bit optimistic.

**\*\*Action Item for 178 Tiger Team members\*\*** - send any suggested changes to Steve.

Question: Any more comments on this?

Answer: (Silence)

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

Ed was informed that Lev had run into some stumbling blocks and needed more input from the DDWG. Lev is on the call today.

Lev met with people to discuss the SCR but they had a problem. Three possible solutions, but not sure which is best. Would like advice. The problem is how to specify the special constants if the value is space space A or space space A space space, maybe we just want the A. Could just trim extra spaces or a second option would be to use a collapsed data type and collapse the space, but that could be confusing. The last option is to preserve it. So that's the issue.

Question: Preserve, collapse or trim - any input?

Another Question: Are you gonna talk about complex numbers? That's also something we need input on. Only binary in PDS4. We need to consider how to have ASCII in PDS4.

Answer: We possibly need a new SCR.

~ It relates to this.

~ I would divide the question because how to reference complex numbers in ASCII is a broader question than just how you represent the special constants. I think I would divide it.

~ Someone agrees.

CCB-131 can't move forward until decision on collapse, preserve or trim is made.

Question: Do other nodes have this problem and really need this? ATMOS has never encountered this.  
Answer: SBN yes. Issue with ASCII strings all the time.

~ We're going on a tangent. We're not trying to solve this here. Team needs input from people using special constants about which solution is best. We need volunteers to work with the team on this off-line.

~ GEO has special constants that are numeric values, not character strings.

Question: Is this an actual problem we are trying to solve or a hypothetical problem?

Answer: The team will decide that.

~ SBN may be the only node with this problem.

Question: Volunteers? Chris?

Answer from Chris: Not sure if this is a problem for IMG. Will take an action item to figure it out and let Lev know. **(Action Item - Chris)**

Question to Lev: Is this what you wanted?

Answer from Lev: Would like to rant, but won't.

~ The team will come up with the best solution and go from there.

~ That works for someone.

### # Agenda - Section 3

Milestones were assigned last time for **CCB-179** (use ASCII-nonnegative integer where value must be >0, **CCB-180** (Clarify whether namespace abbreviation in labels must correspond to namespace id) and **CCB-174** (Composite structure class). For these, the team leads need to work on establishing some milestones for us to track.

**## CCB-180 - Clarify whether namespace abbreviation in labels must correspond to namespace id** See <https://pds-jira.jpl.nasa.gov/browse/CCB-180>

SBN is confused by CCB-180. Thought they were getting a lead from PSI, but sees Tanya listed.

~ It was a mistake to say Tanya was lead. Mistake was because she is listed first on the spreadsheet.

Team lead will be Bea Mueller, a PhD scientist from PSI.

Other members on the spreadsheet include Tanya, PPI, IMG, Steve, Lyle.

~ PPI will figure out a person for the team and get back to SBN.

~ SBN will give Bea the spreadsheet and instructions. SBN will keep an eye on it. There is an issue because Bea can't write to jira. She can read it, but can't write. This might be a constraint on who can be a team leader. Asked Sean about giving Bea access, but not sure they want to open this to all possible PDS staff.

~ EN will wait to discuss this with Mitch and come up with a plan.

**Action Item - Anne** - send Bea's contact info to Ed, Mitch and Debbie to be in the minutes.

~ Anne doesn't have an email address for Tanya. Ed will send it to her. **(Action Item - Ed)**

There are two **Action Items** for this SCR:

1) PPI and IMG will provide contacts for the team members

2) Get Tanya's contact information.

(Bea Mueller's email address is [mueller@psi.edu](mailto:mueller@psi.edu))

# Agenda - Section 4

Now the hard part of the meeting. We have four SCRs that we want tiger teams for. We need to set priorities, level of effort, etc. Tiger teams can then start thinking about setting milestones.

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

Packed data is already in the SR. At the MC there was a proposal by RS for wording of a policy that says not all packed data allowed, unless it's a product observational for radio science.

RS is willing to lead the team, but points out that CCB-149 (Should PDS4 allow packed data? See <https://pds-jira.jpl.nasa.gov/browse/CCB-149>) is easier and should be done first. It's basically solved by the policy. Willing to lead both teams.

The plan - Ed will fill in a spreadsheet for CCB-153 and give it to RS. RS can make a copy for CCB-149. They will both work with Mitch on this.

RS is team leader. Ed will also be on the team.

Question: Who else will be on the team?

Answer: Suggestion that Susie and Ron be involved since they are on the document writing team and this is basically a rewrite of the SR.

~ The SCR has two parts - part of the effort is to change the SR and there are also possible changes to attribute names to make.

Anne wants to be on the team.

~ Ron says Dan wants him to be on the team because he has strong opinions on this.

~ Joe also wants to be on the team.

We still need priority, level of effort, etc.

~ Priority is kinda medium. RS has data that will be packed data, but doesn't need this for that soon. So, just normal priority.

~ For level of effort - don't think it's much work, but the team may feel different.

Question: Is this just decided by the team or do nodes offer feedback?

~ IMG alt is asking because was told by Jordan (IMG rep) that he believes this to be back burner priority and a high level of effort.

~ Someone doesn't see a lot of effort unless there will be changes to the IM.

~ Team lead will contact IMG for his reasoning. **\*\* (Action Item - Dick will contact Jordan)\*\***

Target build is the next build.

Question: Any comments?

Answer: (Silence.)  
~ Sold.

RS will use the CCB-153 spreadsheet as a template for 149.

## CCB-184 - The xs:choice element does not validate as expected when minOccurs and maxOccurs are both '1'  
See <https://pds-jira.jpl.nasa.gov/browse/CCB-184>

This is from SBN. SBN is happy to work on this. Already has test cases. Also needs Steve on this. It's closely tied to what LDD is doing.

Ron will be on the team.

IMG alt reports that Jordan will get an IMG tester for this. He considers this high priority.  
~ Yes, it would be urgent for him.

Question: What's the level of effort?  
Answer: Low, bordering on medium.

Question: Type?  
Answer: Almost a bug, call it a constraint.

This is for the next build, but we really need a patch for LDD Tool before the next build.

Question: Comments? People who want to be involved?  
Answer: (Silence)

## CCB-181 - Clarify whether newlines are allowed in PDS DSV 1 See <https://pds-jira.jpl.nasa.gov/browse/CCB-181>

This has been discussed in emails. Someone sees no ambiguity, someone else does.

Question: Wasn't it PPI that wrote the standard?  
Answer: Yes, but it's in the SR.  
~ PPI will look at the issue. Will be on the team.

The issue is about CRLF to delimit records and field record gets something else, like a comma. Problem is if field goes longer than the line. The issue is that some terminals will put a CRLF at the end of a line even if it is the middle of a field. If we don't want new lines or CRLFs in fields then we need to clarify that.

~ The issue is if we want to make the standard stricter.

Joe will lead the team.

Question: Who else will be on the team?  
Answer: Lev will be on the team.  
~ RS will look at the team results.

Question: Priority? How urgent is this?

Answer: Low priority.

~ Level of effort will be low and we will make it a constraint and for the next build.

Question: Any other comments?

Answer: (Silence)

## CCB-185 - Allow multiple instances of Primary Result Summary in Context Area and File Area  
Observational See <https://pds-jira.jpl.nasa.gov/browse/CCB-185>

This is a new SCR from Joe. It's for multiple instances of primary results summary for context area or observation area.

We need a team lead and priorities.

~ Joe will be on it since he raised the issue.

~ SBN is interested, but is overbooked. Can see why we might want it. Confident that the team will do something reasonable.

~ Lyle will be on the team.

~ Ron volunteers Steve. Thinks he will be interested.

Question: Anyone else?

Answer: (Silence)

We need a lead.

~ Ed put Joe's name. The team can change that and let him know.

Priority is normal. Level of effort is medium. It depends on if changes are needed to software. It will be for the next build.

Question: Any comments?

Answer: (Silence)

## GIS

No SCR for this yet.

There is a lot of discussion and activity on GIS at IMG. Moses is being very active.

~ As soon as Moses is ready and submits the SCR to jira the DDWG will start looking at it.

~ He's probably close.

# Agenda - Section 5

## CCB-172 - Add movie format(s) to list of acceptable documents See <https://pds-jira.jpl.nasa.gov/browse/CCB-172>

There has been a lot of email on this. Figuring out what standard to acquire is the next step.

Team leader sent email to the team asking if a listed set of documents were the right ones to request. No one has responded yet.

~ One team member says he is not an expert so has no idea.

~ Someone else hadn't heard anything.

~ It only went to the team.

~ Someone who didn't think they were on the team got the email.

~ People can still be added to the team.

~ Anne is not on the team, but is on the hook to read the standards when we get them. SBN has data to use as a test case.

~ There has been a lot of activity at IMG on this. Leader will probably hear from IMG people soon.

~ Good.

When the list is figured out, team leader will send it to Tom and Maria to start work to obtain it.

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Question: Any last comments?

Answer: We skipped CCB-179 (In PDS4 'pds' namespace, use ASCII NonNegative Integer where value must be >0, <https://pds-jira.jpl.nasa.gov/browse/CCB-179>) and CCB-174 (Add the Composite Structure class, <https://pds-jira.jpl.nasa.gov/browse/CCB-174>). Maybe we could hear from Lev on CCB-179.

~ We need tiger teams to establish milestones for these two. Lev is entire team for CCB-179.

~ This shouldn't be a unilateral effort on Lev's part. Need a team.

Question: Anyone want to work on this?

Answer: (Silence)

~ It's listed as low priority and a low level of effort.

~ That sounds reasonable.

Question: What do we want to do?

Answer: Someone thinks the pay-off is so small, it's just a lot of extra work.

~ EN has the same opinion.

Question: Did note-taker catch that?

Answer: Yes.

We will see if Mitch wants to put this on the back burner.

~ PPI would be willing to help if it is on the back burner. Too over subscribed right now.

~ SBN could also help by using it as a training activity.

Some SCRs are not being as aggressively worked as we clear others up.

Question: For CCB-174 who is on the team?

Answer: Steve, Ed, Lyle, Joe, others.

~ Others can volunteer.

~ It looks like a pretty full team.



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Question: If the next meeting is May 11 are there any major conflicts?

Answer: Anne maybe. Not sure who alternate is.

~ Debra also might not be here. Not sure if there's an alternate note-taker.

~ RS will take notes if Debra isn't here.

**\*\*Action Item - Everyone\*\*** let Ed know by May 5 if you can't attend May 11. If it's a huge number maybe we will push back a week.

~ Mitch won't be back until May 20.

From: mgordon@seti.org

To: pds-ddwg2@lists.jpl.nasa.gov, Ed Guinness, Matt Tiscarino, maria.liukis@jpl.nasa.gov

Subject: Updated DDWG telecon agenda, May 1

Date/Time:2017-05-11T08:32:00 PDT

Hi all,

I've attached a revised summary spreadsheet.

Attendees: Banks, Gordon (Chair), Guinness, Huber, Joyner, King (listen only), Lim, Liukis, Mafi, McLaughlin, Nagdimunov (listen only), Padams, Raugh, Semenov, Simpson (temporary Secretary).

Gordon called the meeting to order at 09:30 PDT. Mitch thanked Guinness for filling in very capably during his month-long absence.

Here is the revised agenda –

- A. SCRs for which a specific milestone or milestones appear overdue (yellow in the spreadsheet). Need an quick update from the node rep of the TT lead

- a. CCB-131 Special Constants Attributes SBN

CCB-131 has missed a couple milestones; Simpson provided a brief summary, then Nagdimunov said he will send an updated spreadsheet.

- b. CCB-156 LDD Inconsistencies SBN

This is also behind; when Raugh returns to work and receives input from Mafi, she will update the spreadsheet.

- c. CCB-177 Source Product Identification CIS

CCB-177 is also behind; it has apparently missed a milestone, but Padams said he sent an updated spreadsheet yesterday. However, there are no completion dates shown, which Jordan said have been completed; he will update the spreadsheet.

- B. SCRs discussed last meeting. Tiger teams were identified, but we have not received spreadsheets with milestones from the tiger teams.

- a. CCB-153 Additional Description of Packed\_Data\_Fields in SR RS

CCB-153 was started during the last telecon; Simpson has run an e-mail test to the TT members and will prepare a spreadsheet with milestones before the next telecon.

b. CCB-179 use ASCII\_NonNegative\_Integer where value must be >0 SBN

CCB-179 needs a spreadsheet (with names of TT members) from Raugh.

c. CCB-180 Clarify namespace abbreviation rules SBN

CCB-180 needs a spreadsheet from Bea Mueller. There are TT slots for PPI and CIS but no person names; Mafi and Padams volunteered.

d. CCB-181 Clarify whether newlines are allowed in PDS DSV 1 PPI

CCB-181 needs a spreadsheet (with names) from Mafi.

e. CCB-184 xs:choice validation issue SBN

CCB-184 needs a spreadsheet (with names) from Raugh.

f. CCB-185 Allow multiple instances of PRS in Context\_Area PPI

CCB-185 needs a spreadsheet (with names) from Mafi.

### C. SCRs to identify Tiger Teams

a. CCB-173 Product Update

Mitch wants to clean up CCB-173, then bring it back to DDWG in a month. Are there others who would like to be on the tiger team? Huber, Guinness, and Padams want in. Mafi, Raugh, Semenov, Simpson, and Lim do not want to be on the tiger team. Gordon will distribute a new spreadsheet.

Not counting CCB-149 which we've passed to the CCB, with the assignment of a tiger team to CCB-173 today, we'll have 15 active SCRs; 16 if CCB-183 comes out of limbo. I'm inclined to not promote more from the in queue list until we clear some up. Please look over the spreadsheet and see if there is something that can't wait.

CCB-149 is awaiting closure as a consent item by CCB (scheduled next week).

The last possible Thursday DDWG meeting to support IM 1.9.0.0 is August 3<sup>rd</sup>. However, we'll have until noon of the following Thursday for any additional cleanup and e-voting. Our hard

deadline to get an SCR on the agenda for the last CCB prior to the IM being frozen is noon August 10<sup>th</sup>.

For your calendars, there will not be a DDWG telecon on June 15<sup>th</sup> because of the Flagstaff Data Workshop.

DDWG members should review the summary spreadsheet and send comments on priorities to Gordon. Specifically, are there SCRs that should be worked in May rather than June?

Guinness asked whether there would be an SCR proposing acceptance of a version of GIS. Padams has not prepared an SCR, but potential data providers are starting to line up. It would be desirable to have a GIS format on the books in time for v1.9.0.0 (this would require a DDWG-approved SCR by early August). Rough is concerned that there will be a quick-and-dirty fix to include GIS that will require significant repairs later. However, her concerns were at least moderated when Padams informed her there is already data in hand for testing. Huber, Guinness, Lim, EN, and Milazzo will be on the tiger team; Padams will lead.

Next telecons will be May 25, June 8, June 22, etc. There may be weekly meetings in July to complete work in preparation for v1.9.0.0.

There was discussion of possible use of Google Docs for exchange of DDWG files. Crichton has already set this up, in spite of a warning in the current JPL IT security training warning not to use either Google Docs or Dropbox. Gordon will investigate procedures for using these services, on the assumption that DDWG handles nothing that requires special security.

There being no other business, Gordon adjourned the telecon at 10:05 PDT

Mitch

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title: DDWG Notes 2017-05-25

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# May 25, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, J. Padams, A. Raugh, B. Semenov and R. Simpson

Observers: M. Banks and L. Nagdimunov

## Email sent May 24, 2017 from M. Gordon: Re: DDWG2 telecon agenda, May 25 Included five attachments:

agenda-20170525-v2.txt

CCB-156-20170523.xlsx

CCB-182-20170525.xlsx

CCB-178-20170524.xlsx

CCB-184-2017-05-23.xlsx

## DDWG Agenda (version 2) 5/25/2017

1) Review and vote.

Please look at these two SCRs in JIRA in advance.

CCB-179 Lev ASCII NonNegative Integer

\*\*(Steve will do the TA. DDWG will vote by email)\*\*

CCB-172 Lyle Movies

CCB-172 was updated yesterday. If everyone is comfortable with it, we will hold a vote. Otherwise the vote will be either electronic or held during the next telecon.

\*\*(Discussed. Still need standard, but moving forward. Will discuss again in two weeks)\*\*

2) Discuss

CCB-183 Mitch stewards vs. namespaces

There are some faulty assertions in this SCR. Just so we are clear, in terms of information modeling, there is no prohibition to multiple stewards within a namespace. The technique is often used and provides additional flexibility. The fact that we have two stewards (pds & ops) in the pds namespace is not a mistake; it was done intentionally and for good reason. However, the SCR does raise one valid point, In the SR, section 6B we currently have: "A namespace may have only one steward". A similar restriction is included in the Concepts Document (page 11).

This too was intentional; although, overlooking the implementation in the pds namespace was an oversight. While information modeling permits multiple stewards, we wished from the outset to exercise somewhat tighter control over discipline, and especially, mission namespaces.

I believe the proposed solution to CCB-183 should be to change SR, section 6B to read "A namespace, other than the common namespace (pds), may have only one steward", and to make the corresponding

change in the Concepts Document. Ensuring compliance will be the responsibility of the curating discipline node.

This will not affect the IM or any software tools. If we go with this solution, then I recommend we change the SCR to a bug fix.

\*\* (DDWG voted No - see discussion below) \*\*

### 3) General Updates

CCB-173 Mitch product update - nothing to read in advance, I'll provide the update.

\*\* (Discussed) \*\*

### 4) Overdue milestones

As I hoped, I've received several updated status report spreadsheets. At this point, one SCR has an overdue milestone.

CCB-177 Jordan Source prod

m3 5/18/2017 Identify schema/Schematron updates for IM \*\* (Not Discussed) \*\*

### 5) Review Milestones

I've received status reports (new, or updated with revised milestones) for CCBs 156, 178, 182, & 184. All are attached. Please review them prior to the telecon - are they realistic and sufficient? We will discuss those, if any, for which any one of you has a concern.

At this point there are three SCRs for which tiger teams have been identified but have not yet submitted status report spreadsheets with milestones identified. The respective contacts have acknowledged yesterday's gentle nudge, so we will not discuss them.

CCB-180 Anne namespace abbrev

CCB-185 Joe multiple PRS

CCB-188 Jordan GML

\*\* (Brief Mention) \*\*

# DDWG Telecon

# Agenda - Section 1

## CCB-179 - In PDS4 'pds' namespace, use ASCII NonNegative Integer where value must be  $\geq 0$  See <https://pds-jira.jpl.nasa.gov/browse/CCB-179>

Impact statement and TA are currently blank.

Question: Can we get the TA done so we can have an evote?

Answer: Yes.

~ It will be done today.

Once the TA is done, we will have an evote and get the SCR to the CCB.

Question: Any last comments on CCB-179?

Answer: Yes, a wording suggestion. We should "require" ASCII non-negative integer. Author didn't respond to the comment in jira. It says "commit" still. A lot of work was done on this. Mostly okay with it otherwise.

~ It seems that the document group should be able to do the necessary wordsmithing.

~ Trying to avoid that. Surprised the author didn't respond to the comment.

The author didn't say "require" because it's just an internal policy. No documentation to say how to write data dictionaries of any kind. Could change to "require", but not sure where it would go.

~ Good point. Plus, if we require it, it become a requirement. Won't accept a requirement that can't be validated.

~ We already have some.

~ We are looking at an internal policy.

**\*\*Action Item - Everyone\*\*** expect email when the TA is done. Review it and vote by email. Let's try to get this moving forward.

Suggestion for the TA - change "base" type to "data" type.

~ Makes sense.

Question: Is this exhaustive?

Answer: It's supposed to be exhaustive. There was a quick addition.

~ Fairly confident we've got them all.

~ **\*\*Action Item - Lev\*\*** - will change base type to data type.

~ It was used twice.

**## CCB-172 - Add movie format(s) to list of acceptable documents** See <https://pds-jira.jpl.nasa.gov/browse/CCB-172>

Question: Applause to the tiger team for this one. Anyone read it? Comments? Concerns?

Answer and Another Question: Seems okay, but haven't seen the standard yet. Does PDS have it yet?

Answer: Not to my knowledge.

Another Question: Is it available on-line?

Answer: Team member reviewed the important parts of the standard.

~ The team evaluated the known standards, narrowed down to what made the most sense.

Someone is concerned because we are an archive.

~ Understood.

~ This is a problem because we have to support this for 50 years. If we use a codex that falls out of general support we can't convert it properly without the standard.

~ Yes, we need a copy of the standard in case someone needs it in the future.

~ Also concerned because past standards have sections that PDS shouldn't implement in an archive.

These are written for contemporary data, not archives. Not sure we are not committing to something we can't support.

We need a specific list of standards - the most recent ones.

~ Not sure of the details - need to check with other team members.

Someone doesn't think having the documents will change the votes. Not sure it affects how we want to do this.

~ JPEG and PDF standards had to be constrained for PDS archive. Nodes may have voted for them too. Concerned.

Thought Tom had an action item to get the standard.

~ The one he was told to get wasn't useful. We need to know exactly what to order.

\*\*Action Item for CCB-172\*\* - send an email of exactly what's needed to Maria Banks. CC Mitch and Anne.

~ Maria will make sure Tom moves quickly.

We want this through the CCB in a timely manner. Inclined to wait to vote for two weeks in case we decide we want to restrict anything.

~ Concern about standard going into 1.9 and being unrestricted.

~ This will be in 1.9. We can do a point build if we need to. Hope Tom can get what we need.

Question: What's the time-line on getting data submitted?

Answer: Already getting it.

~ ATMOS, GEO and SBN all have PDARTs. This needs to be done quickly.

~ It's important to get this done quickly.

~ We don't want to be too broad, but we need to get it in and repair it when necessary.

Regarding suggested changes - number 2 needs to be reworked. The formatting should go in a new enumerated value. There's some necessary clean up.

~ There is a definition of the new enumerated value. Plus, this is a document product. It belongs here because they are document products. If I look in a cookbook for Rhubarb pie, I would look in a section called "Pie" I wouldn't expect a section called "Rhubarb Pie".

(Something was said about Section 8A.2.2 of the Standards Reference)

The third requested change is out of our domain. Where MPEG comes from, etc., doesn't go in policy.

~ Team was trying to capture a place to store the document. Not open to many changes.

~ A document writer is against this as a document writer.

Question: Do we need to ask the MC for a formal policy?

Answer: We don't need to, but it's not a bad idea.

~ Someone is not convinced we need a policy if it's in the SR and we're only going to use video for documents.

Another Question: Do people think that will last? I think we'll get data soon.

Answer: Agreed.

~ If the SR says this is for documents only for now, it can change when we need it for data.

~ Don't see anyone doing it now.

~ Don't see a need for a policy for now.

~ When it comes to data we probably will need a policy, but that's a completely different discussion.

Pushing this out two weeks. People will look for standards. Anne will check for local copies at UMD, Maria will pass the request to Tom Morgan.



## # Agenda - Section 2

## CCB-183 - IM contradicts SR on how many stewards to a namespace See <https://pds-jira.jpl.nasa.gov/browse/CCB-183>

This was written up in the agenda (see above). The SCR gets lost in the verbiage. Got a "no merit" from EN. Looked again. There is an inconsistency between the SR and the PDS namespace.

It's not a mistake, it's allowed. A technique for flexibility. Recalls that the group made a restriction years ago due to data providers who push things as much as possible. Proposing CCB-183 be streamlined and that we put a phrase in the SR and Concepts Document that namespaces other than PDS can only have one steward. Would be a bug fix.

~ Too much detail for the Concepts Document. Wouldn't bother changing it. Also, PDS isn't a steward. Usually a steward is a node or a person. The terminology is confusing.

Question: Is it true that the Ops namespace will never be removed from PDS core?

Answer: Yes.

Another Question: So why are there two stewards?

Answer: Ops is Sean and PDS is Steve.

~ The question is really about differentiation.

~ Would call that a view.

~ Sub-stewards. Yes, two views. Agreed.

The point is really that the steward is the person responsible for making changes to a namespace. For PDS it's the person who maintains the IM, so it's Steve. Sean is like a person with vested interest, but that doesn't make him the steward. There really is just one. What you have is a different view. There is no separate namespace for Ops.

~ There are two different steward IDs. Governance or whatever is besides the point. This should go off-line for now. Spent a lot of time on this. It's working. Subtle issues, yes, but not sure why this is being raised.

~ The responsible party for a portion of a namespace is a steward.

~ Stewards can have governance and can give portions to sub-stewards. The bottom line is that if we're trying to separate out the sub-steward IDs - that's a huge change.

~ Internal organization isn't relevant.

We could leave it as is - close out or vote on the small suggested change, but this doesn't change how we do this. Talked about this way too long. Should decide on our two options and close this out.

The vote will be: Yes - modify to have the brief change in the SR or No - kill this.

Question: Is there a third option?

Answer: (Silence)

~ So, Yes is a small change to the SR and no means ignore it because it's stupid.

Another Question: The small change?

Answer: Adds the phrase "with the exception of the PDS namespace".

~ There could be many stewards for PDS.

\*\*The Vote -

RS - No

Rings- Yes  
SBN - No  
ATMOS - No  
GEO - No  
EN - No  
PPI - Yes  
NAIF - No  
IPDA - No  
IMG - No\*\*

So, by a substantial margin, this goes to the CCB with no further action.

Question to Ron: Can you take care of this?

Answer: Yes \*\*(Action Item)\*\*

# Agenda - Section 3

## CCB-173 - Modify Product Update

See <https://pds-jira.jpl.nasa.gov/browse/CCB-173>

Tiger team had a good telecon this week. Agreed to close this out and write a new SCR. Will be superseded by the new SCR. A new product - product metadata enhanced. Product update will be deprecated. Streamlining, making the product more like index tables in PDS3. Hope to have a new SCR next week.

Question: So, changing CCB-173 to say we are going to deprecate product update?

Answer: Will withdraw 173 and a new one will deprecate product update.

~ Want to make sure product update is deprecated.

~ It hinges on approval of the new one.

Question: Name of the new product?

Answer: Product metadata enhanced.

~ That's too generic. Maybe add the word "table" on the end, to make it more specific.

Another Question: At product level?

Answer and Another Question: Yes. Is there only one type of metadata enhancement?

Answer: Not sure. Understand the concern, not sure agrees.

Taking this off-line.

# Agenda - Section 4

Teams will get outstanding milestones in.

# Agenda - Section 5

Question: Did everyone review the milestones? Any concerns? Comments?

Answer: (Silence)

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The TA of CCB-179 has been completed.

Next telecon in two weeks.

title: DDWG Notes 2017-06-08

layout: default

date: 2017-06-08

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# June 08, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, L. Huber, S. Hughes, D. Kazden, T. Lim, J. Mafi, S.

McLaughlin, J. Padams, A. Raugh, B. Semenov and R. Simpson

Observers: M. Banks, C. De Cesare, S. Hardman, and S. Slavney (alternate for E. Guinness)

## Email sent June 7, 2017 from M. Gordon: agenda for the June 8th

DDWG-2 telecon The agenda is very short:

1) Review in advance, so we can discuss and vote on · CCB-172 \*(DDWG voted Yes)\* · CCB-181

\*(Discussed)\*

2) I will briefly discuss milestones and the big deadline.

\*(Discussed)\*

# DDWG Telecon

Not a lot of new ground today. We have two SCRs ready to vote on.

## CCB-172 - Add movie format(s) to list of acceptable documents See

<https://pds-jira.jpl.nasa.gov/browse/CCB-172>

Question: Any discussion before we vote?

Answer: Still haven't seen a standard.

~ JPL paid around 600\$ for a copy of the standard, it came with a name

attached. Only Ron is allowed to look at it. Tom couldn't get it. The restrictions are onerous.

~ Standards typically can be licensed to an institution. Can't in good

conscious vote to support a standard I've never read. I wish I could, just can't.

~ Not sure everyone shares that concern. People who do can abstain.

Question: Other comments?

Answer: We talked a few weeks ago regarding accepting the standard and

then limiting it in the future. Think it might be better to identify

specific codices for archiving and then possibly expand what's allowed

in the future. We need someone who has read the specification to make recommendations. Would feel better if a reader could advise us.

~ Codices are in the SCR. Tiger team feels confident that Trent and

Lev are familiar enough with it and are on top of it all.

~ As long as they are satisfied from their research that it will work for an archive.

~ Lev is concerned there was no standard to read. He added comments to jira. Can't describe him as satisfied.

It seems that nodes will have to buy however many copies of this standard that they will need.

~ Fine.

~ PDF standard had restrictions that we needed to add for PDS.

~ We need to buy the standard. Concerned about the idea of changing this later. People will get upset because of it being a non-backwards compatible change.

~ We could end up with things in the archive that shouldn't be there.

Question: Are there any more comments? We need to vote on this.

Answer: (Silence)

**\*\*The Vote on CCB-172:**

SBN- No

ATMOS - Yes

PPI - Abstain**\*\*** (Comment: want someone to report on what's in the standard) **\*\*IMG - Yes GEO - Yes EN - Yes IPDA - Yes NAIF - Abstain RS**

- Yes**\*\*** (Comment: trusting IMG opinion. Hopes this all works out)

**\*\*Rings - Yes**\*\*****

(Email from Mitch to note-taker after the telecon asked that the notes include the

following: "Be sure to include a comment that several nodes (PPI, RMS, SBN) expressed concern for adopting a standard which we have been unable to obtain for broad review.")

Suggestion that SBN write a short comment in jira about concerns about not having the standard.

~ SBN agrees, but doesn't see how it will help.

**\*\*Action Item - Mitch will send Anne email to remind her to comment in jira.**\*\*****

EN wants to make sure it's clear that they did what they could. This issue needs to go to HQ. This will happen again.

**## CCB-181 - Clarify whether newlines are allowed in PDS DSV 1 See <https://pds-jira.jpl.nasa.gov/browse/CCB-181>**

This is just a clean up of the PDS DSV standard - the way separated variable tables are written CRLF is required at the end of the line. Precludes it being anywhere else. Tiger team thinks it's all worked out. There's a TA that says no impact except in the SR, but it's not backwards compatible. ~ Someone couldn't find the TA, but has comments. First, the problem statement isn't true. There is no ambiguity in the SR. In principal there is no reason you can't have a new line in a field. The whole premise is off base. Second, the standard doesn't directly apply to our archive - it needs to go up against table delimited. Delimiters

are pretty clear. The problem is with certain browsers. It's more of an implementation problem of how browsers interpret what's in the data file.

The way the standard is currently written CRLFs are allowed in fields. The question is if that was the intent. It would be good to know explicitly. Discussion in the tiger team was that allowing CRLF in a field would be problematic to deal with. Tiger team couldn't think of many instances where it's done.  
~ It could be in translation table, where you might want to tell people how to interpret. Never seen it. Think it would be looking for trouble, but the standard allows it.  
~ The question is if that's really the intent of the standard. Tiger team conclusion is that we shouldn't allow CRLF in fields. Never seen it in a data file. Complicates visualization and reading data. More problems than it's worth. That's why the solution and changes.

You have to use the same logic for table character. Would have to have the same rules as table delimited.  
~ That's not unreasonable, but it's a separate SCR.  
~ We would have to change table character and this is the PDS DSV standard.  
~ Yes, but this is a separate thing.

These are separate issues. We are only concerned with the PDS DSV standard now. We can decide if we want to address character tables.

(At this point note-taker emailed a speaker to clarify some of the discussion as the notes weren't clear. This is what the email said:  
"Here's the point I was trying to make. It followed a comment that this would affect all tables, not just delimited tables, because there are text fields in fixed-width tables.

I noted that the fundamental difference between fixed tables and dsv tables is that fixed table can be parsed purely on known byte counts, irrespective of the byte content, while dsv tables have to be parsed based on interpretation of each byte and its derived context. The problem Lev found in writing his own parser for DSV was that there was a logical hole in the standard and it was not clear what assumptions he could make or not make in parsing dsv bytes into fields and records.

Since this ambiguity existed when EN wrote its parser, they must have made some sort of decision, consciously or not, about what assumptions they could make. My main concern is that the standard and the canonical parser provided by EN are consistent. So either the standard hole needs to be filled by whatever assumptions EN made in the java library, or the hole needs to be filled in the preferred way and the EN library modified to reflect that. Since Sean could not say definitely what the current behavior of the EN library is, that needs to be determined first. Then you can do a cost-benefit analysis for bringing the library and the standard into alignment in one way or the other.

For myself and SBN purposes, I don't care if particular characters are forbidden or not - happy to go with whatever the primary users want. I do care that the standards and the PDS tools are in agreement.")

Good Point.

Question: Any comment from Sean?

Answer: Agrees. Untested.

~ That's the fundamental underlying ambiguity - parse into fields or just have byte strings.

We need a TA from Sean on the impact on the system. We can move this topic to our next telecon in two weeks.

~ Maybe Joe could provide Sean with labels to test.

**\*\*Action Items to Joe to send Sean labels to test and to Sean to do a TA\*\***

Question: Is this SCR trying to solve a real problem that someone has or is this a possible future issue?

Answer: I think someone was working on code to parse tables and found this ambiguity and reported it as a clarification issue. Standard and tools should be in complete agreement.

No vote today.

~ Joe will provide samples and Sean will do a TA and we will discuss this again on our next telecon

## ## Milestones and the Big Deadline

The way everything is tracked now is by looking at due dates and looking for updated spreadsheets from tiger teams - sometimes just with a date something was completed.

We have approximately 15 or so SCRs projected to close at the end of June or in July.

There's a hard line in the sand. August 3 is the last DDWG telecon where we can approve SCRs, get them to the CCB and have them in 1.9.

The real hard line is noon on August 10. So, in the first couple days of August SCRs have to be closed. Look at your milestones. Make sure everything is on track.

The other issue is there are SCRs that are not yet being discussed.

There are 5 SCRs in the queue, no tiger teams yet. Three SCRs are on hold - pending the outcomes of others.

The feedback from last time is that CCB-179 (In PDS4 'pds' namespace, use ASCII NonNegative Integer where value must be  $\geq 0$ , see <https://pds-jira.jpl.nasa.gov/browse/CCB-179>) was approved by the CCB, and CCB-183 (IM contradicts SR on how many stewards to a namespace, see <https://pds-jira.jpl.nasa.gov/browse/CCB-183>) that we recommended was not worth changing the SR, also went to CCB and they agreed.

We are now in June and have two months and a bunch of SCRs.

Question: Should the action items on CCB-181 be added as milestones?

Answer: Yes.

Question: Anything else?

Answer: (Silence)

Title: Ddwg Notes 2017-06-22

Layout: Default

Date: 2017-06-22

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# June 22, 2017

Notes By Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S.

Mclaughlin, J. Padams, A. Raugh, B. Semenov And R. Simpson

Observers: M. Banks, C. De Cesare And M. Liukis

## Email Sent June 20, 2017 From M. Gordon: Ddwg Draft Agenda For

Telecon Thursday, 6/22/17 Included Two Attachments:

Ccb-176-02-Notes\_170620.Docx

Ccb-176-Affected-Docs\_170620.Docx

## Ddwg Agenda

1) Vote:

Ccb-181 - Clarify Whether Newlines Are Allowed In Pds Dsv 1.

We Discussed This Last Time. There Was Some Concern That The Proposed Solution Might Impact The Tools. Joe Produced Some Sample Labels Which Sean Used For Testing. Sean Has Provided A Ta Based On That Testing.

Please Review In Jira And Be Prepared For A Vote.

\*\*(Voted Not To Pass It To The Ccb Yet. Needs More Work)\*\*

Ccb-176 - Update Node Names.



I Will Update The Scr Wednesday And Send An Email When That Is Done.

I've Attached Two Files, One Contains Identified Instances In The Im

With Yellow Highlights Indicating Where We Are Not Proposing Changes.

The Second Identifies Which Documents Are, And Are Not, Recommended For Changes.

This Is A Fairly Minor Issue. Hopefully Thursday We Can Discuss And

Vote On It, So Please Review It In Jira Once It Has Been Updated.

**\*\*(Voted To Send This To The Ccb As A Bug Fix)\*\***

2) Discuss:

Ccd-182 - Clarify Whether Cdata Is Allowed.

Cdata Is An Xml Feature That Allows One To Use Characters Which Are

Part Of The Xml Markup (E.G., <, >) In A Block Of Text Without Individually Escaping Those Characters.

Cdata Is Not Currently Addressed In The Pds4 Im Or Documentation, So

Whether Or Not It Is Permitted Is Ambiguous.

The Tiger Team (Mitch & Joe), Having Queried A Few Programmers, And

Touched Base With Sean, Recommend That Pds4 Explicitly Allow Cdata

With A Caveat That It Be Used Sensibly (E.G., In A Description Field

That Contains Formulas That Use A Greater Than Symbol, But Not In A Paragraph Where The Words "Greater Than" Can Sensibly Be Used).

If The Ddwg Is Comfortable With This, The Remaining Question Is "Where

Do We Say It Is Permitted"? Sr?, Dph?, Both?, Neither?

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

3) Status Update From Tt Lead (Unless I Get An Updated Spreadsheet Our  
An Email Update Before The Meeting):

Ccb-156 Ldd Inconsistencies - Anne

Ccb-177 Source Product Identification - Jordan

Ccb-178 Internal Reference Attributes - Steve

Ccb-185 Multiple Instances Of Prs - Joe

Ccb-188 Allow Gml - Jordan

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

## Additional Email From M. Gordon, Re: Ddwg Draft Agenda For Telecon

Thursday, 6/22/17, Sent June 21, 2017 I've Updated The Proposed

Solution For Ccb-176 In Jira, And Added The Two Files I Sent

Yesterday. Please Review The Jira Entry Prior To The Telecon. Again, I Hope To Be Able To Vote On This.

# Ddwg Telecon

Some Difficulty With Webex Is Reported. It Is Suggested That Chrome

Might Work Better Than Firefox.

~ Sometimes There Are Java Issues.

## Ccb-178 - Internal Reference Implementation See <https://Pds->

[Jira.Jpl.Nasa.Gov/Browse/Ccb-178](https://Pds-Jira.Jpl.Nasa.Gov/Browse/Ccb-178)

Question: Is This Ready To Be Discussed Today Or Should It Go To The Next Telecon?

Answer: Let It Go, Please. The Team Is Having A Telecon This Week.

That Will Provide More Information.

Question: Has Any Validation Testing Been Done With A Label To See If

It Performs Different?

Answer: Yes, But Haven't Figured Out The Differences Yet.

#Agenda Item 1 - Vote

## Ccb-181 - Clarify Whether Newlines Are Allowed In Pds Dsv 1 See

<https://Pds->

[Jira.Jpl.Nasa.Gov/Browse/Ccb-181](https://Pds-)

We Wanted To Know If The Scr Would Impact Our Tools. Joe Wrote Sample

Labels And Sean And Lev Tested Them. Scr Says No CrLf Or Lf Except As Record Delimiters.

Someone Is Concerned - Zip File Corrupted. The Question Last Time

Wasn't If There Would Be A Program Error, It Was What Tools Actually

Do And If That What's In The Sr, But The Zip File Was Corrupted. In

Excel It Has Breaks... (Interrupted) ~ The Scr Is To Prohibit Their

Use Regardless Of How Things Work. It's Just Whether There Are Side Effects With Disallowing.

Question: Do The Pds Tools Do Something Appropriate? There Are Ways

The Tools Could React To Call Out Errors That Would Interpret One

Delimiter As Higher Priority Than Another.

Answer: Not What This Scr Is About. It's Only About Having CrLfs At The End Of The Line.

~ Record Delimiters Would Take Precedence.

Another Question: For The Standard Or For Fields?

Answer: The Scr Is For The Standard, But It Could Fix Both.

Question: Is It True That The Only Instance Of Dsv Files In The Archive Will Be As Parsing For Dsv Tables? It Could Be For Documents Too.

Answer: Someone Will Check. The Dsv Standard Is Not Limited To Pds.

Another Question: What Do You Mean? It's An Internal Standard.

Answer: Like Odl. It Was Kind Of Embedded In Pds3, But Others Could Use It.

~ Let's Stay On Topic. This Goes Beyond Pds Because Of Ipda Participation.

~ Ipda Is Not Aware Of Any Issues.

~ Dsv Standard Is Referenced In Header And At Least One Other Place.

Question: Someone Is Fine With Prohibiting CrLf Or Lf, But What About Other Non-Print Characters?

Answer: This Scr Just Addressed CrLf - Not Intended To Address Other Field Delimiters.

~ When We Have A Problem Like This, Because Of Logic Oversight, We Have To Consider Other Special Characters And If We'll Have Problems With Them Too. They All Have Special Contextual Meanings.

~ Good Point.

Question: Could Scr Author Look For Other Issues? Write A New Scr If The Answer Is Yes?

Answer: Yes.

**\*\*Action Item - Joe\*\*** See If There Are Additional Issues And Write A New Scr If There Are.

Question: Anyone Else?

Answer And Another Question: Yes. Is The Ta Sufficient To Show Tools

Will Do The Right Thing? Is That What Handling It Means? Is There A Separate Tool Report?

Answer: No.

~ Someone Has Two Comments. First, Looked At The Ops Example With The

Crlf In Fields, It Worked As Expected, Made A Comment In Jira. Second,  
Would Like The Last Words In Revision 2 Dropped Because They Cover A Different Topic - If That's  
Appropriate.

Question: Any Objections?

Another Question: Where?

Answer: Item 2, Required Changes, Last Three Words "Or Field Delimiter". Strike Those.

~ Okay.

Question: Ready To Vote. Do We Recommend This Be Approved? The Only  
Lien Is Three Words.

Answer: Can't Do It Based On The Ta. Saying The Tools Handle It Isn't  
A Ta. Doesn't Tell Me What It Does, Which Is Critical.

**\*\*The Vote To Pass Ccb-181 To The Ccb**

Sbn - No

Rs - No

Ppi -Yes

Naif - Abstain

Ipda - No

Geo - Yes

En - Yes

Img - Yes

Atmos- No

Rings - No\*\*

Not Enough Yes Votes To Move Forward. The Lien Is For More Clarity In  
The En Assessment Of What Happens If There Is A Crlf Or Lf In The File And The Tools Encounter It.

Question: Where?

Answer: In The Tools Library.

~ But We Don't Do Content Validation.

~ This Is An Io Question. What The Tools Are Based On Now.

~ This Is Making More Work For Ourselves. This Scr Was Just To Clarify Rules. This Is Making More Work For Someone.

~ The Problem Is If The Io Library Tools Won't Agree With The Changes We Make We Might Need To Update The Tools. We Can't Just Update The Sr.

Question: We Want To Make Sure The Tool Fails If One Of These Is In A Field?

Answer: Yes. A Flag Or Something To Report The Error, Fail, Something.

Shouldn't Ignore It If It's Not Allowed.

~ A Possible Lien On Software Development.

~ Fine If It's In The Queue.

Thought We Were Going To Have A Second Scr. Validation Should Be A Separate Scr.

~ Validation Tool Uses The Same Io Library.

~ Yes - Two Issues - Seeing If An Error Occurs And Get The Tools To Support It.

Sean Had Reported That It Was Not A Problem For The Validation Tool If

The Scr Is Approved, But We Need To Know The Impact Of The Tools If The Scr Is Passed.

~ The Real Question Is What The Tools Do.

~ This Isn't An Error Now. We Need To Know If The Tools React Correctly. This Scr Simplifies Things.

~ We Need To Know What The Tools Do. They May Already Do What We Need, But We Need To Know That.

The Vote Was To Return It To The Team. They Will Work With The System

Guys For More Clarity. Will Get The Answers For The Next Telecon.

Someone Can't See The Ta From Sean.

~ He Did Testing. Made The Entry Under The Ta.

~ That Assessment, Second Paragraph Is What I Want To Know About The  
Io Library From En.

~ Still Can't Find It.

~ There's A Terminology Issue - Look At The Impact Statement, Second  
Paragraph. Says Things Handle It, But No Details. We Need Details.

~ Got It.

The Last Three Words In The Section That Needed Changing Have Been Removed.

## Ccb-176 - Update Node Names In The Im See [https://Pds-  
Jira.Jpl.Nasa.Gov/Browse/Ccb-176](https://Pds-Jira.Jpl.Nasa.Gov/Browse/Ccb-176)

There Was A Typo, Imaging To Cartography And Imaging Sciences  
Discipline In Pds Phone Book. Rings Name Had Changed, Imaging Too.  
Contents Of The Phone Book Covered By The Im, So Treating This As A  
Bug Fix. There Are Many Places That Have Incorrect Values. Made A List  
Of What Needs Changing In Im. Going To Change Node Name Class, Pds Node Affiliate Attribute - So Will  
Have The Correct Node.

In Document File Highlighted Some Things In Yellow That Weren't  
Recommended For Changes. Feel That Classes In The Purview Of Imaging  
Or Rings Stewards Don't Need To Go To The Ccb. Went Through The  
Documents - The Sr Has A Table Namespace/Steward - Recommend Changing  
The Names Of The Stewards. In Dph - Two Occurrences In Appendix  
E-3.2 - Example Of Schematron Which Refers To Imaging. Thought It Was Painless To Fix It.  
Nothing In The Concepts Document. Two Node Context Products To Update,  
But We're In

1.7 - Assumes The Ldds Will Be Updated. So, The Changes Are Really In The Sr And Dph.

Question: Any Concerns? Anyone Want To Look At The Dph To See If We Should Change It?

Answer: We Should Change It To Have "Formally Known As" For An Update.

Then We Can Drop That Later. Concerned Because Imaging Is The Steward

For Two Different Ldds. It's A Significant Fact That One Node Is

Steward For Two Things. Potential For Confusion In The Future. Other Nodes Have A One To One.

~ Geo Will Be The Steward For Geo And Geometry.

~ Cis Might Be Confusing.

(Note-Taker Missed Something. Something About Ldds - If Using The Img

Ldd... Want The Node Out Of There - Same In Section 3.4. Need To Say

Discipline Dds For Ldds - ???)

We Can Make Changes To The Scr.

Question: Any Other Comments?

Answer: If We Make These Changes, They Need To Be Made In As Many

Places As They Appear, I'm Inclined To Agree.

~ But In Specific Ldds, That Are Not Pds, Many Make Sense. Need To Fix

The Common Portion Of Pds, Not Worry About The Locally Controlled.

~ Fine If That's Okay With Ring-Moon Systems And Cartography And Imaging Sciences.

Another Question: How Does Cartography And Imaging Sciences Feel?

Answer From Img: We Support 176 And We Are Imaging. Staying With Img Acronym.

On To The Vote With A Few Caveats - A Few Changes To The Scr.

\*\*The Vote -

Rings - Yes

Img - Yes



Atmos - Yes

En - Yes

Geo - Yes

Ipda - Yes

Naif - Yes

Ppi - Yes

Rs - Yes

Sbn - Yes\*\*

The Scr Will Be Fixed And Go To The Ccb As A Bug Fix Unanimously Passed By The Ddwg.

# Agenda Item 3 - Status Updates

We Are Skipping Item 2 For A Moment.

There Are Five Scrs Behind On Their Milestones. Team Leaders Were  
Asked For Progress

Reports:

Ccb-156 - Ldd Inconsistencies - No Progress Yet. Will Discuss At The Next Meeting.

Ccb-177 - Source Product Identification - Team Members Are Bouncing It  
Back And Forth, Trying To Decide On The Best Solution. They Are Way  
Behind Because Trying To Work On The Best Solution.

~ Team Asked To Please Update Their Milestones.

Ccb-178 - Internal Reference Attributes - Briefly Discussed At The Start Of This Telecon.  
Will Be Discussed At The Next Ddwg.

Ccb-185 - Multiple Instances Of Prs - No Progress To Report. Tiger Team Needs To Discuss It. Leader Only Got Responses From People Who Are Not On The Team. Will Ping The Team And Get The Milestones In.

Ccb-188 - Allow Gml - Team Leader Will Get The Milestones In.

# Agenda Item 2 - Discuss

## Ccb-182 - Clarify Whether Cdata Is Allowed See <https://pds-jira.jpl.nasa.gov/browse/Ccb-182>

Cdata Is An Xml Feature That Allows For The Use Of Symbols Without Escaping Them First.

We've Had Tas. The System Tools Don't Break. The Only Problem Is The Bulk Of Readers Won't Put It Back Together If Someone Takes The Label Apart. No Vote Yet - Still Need To Clean This Up. The Team Recommends That We Explicitly Allow This And Would Hope People Use It Sensibly.

If The Ddwg Agrees The Next Question Is Where To Say It. Not Sure If It Goes In The Sr, The Dph Or Both.

~ Constraints Need To Be In Section 9 Or The Sr.

~ Not Constraints. Would Use This As-Is In Xml.

In Peer Review Found A Usage The Team Didn't Like. There Are Groups Who Will Cause Problems.

While Contemplating Possible Objections To Cdata, Don't Think That It Being Ugly Is A Valid Reason Not To Allow It. Not Sure Where It Would Go In The Sr. Maybe In Data Types For String Types.

Would Probably Add Something To The Dph Too - For People Writing Pipelines. Would Need To Warn Them About The Usage With Output. Could

Also Go On A Supplemental Policy Page Or The Sbn Wiki. Should Provide Some Guidance For Programmers Who Plan To Read Or Write Labels.

Question: Anyone Else? Any Objections To Restrictions?

Answer: Can Think Of One Programmer Who Will Abuse It, But He'll Retire Someday.

~ Sensible Use.

~ Cdata Makes It Convenient To Use Valid Characters - Not A Work Around For Other Constraints.

~ Peer Reviewers Can Check For Sensible Use And Object If Not Reasonable.

~ If We Specify Peer Review Is The Gate It Needs To Clear...

~ People Should Know.

~ Cdata For Tiny Strings Will Impinge On Human Readability - Could Be A Lien From A Reviewer.

The Team Will Clean It Up And We Will Have A Final Discussion And Vote Next Time.

# Last Topics

In July We Will Move To Having A Telecon Every Week. We Have To Clear Out All Of The Scrs By The End Of July.

Ron Had A Suggestion Of A Jira Technique We Could Use...But He Seems To Have Moved Away From His Phone.

Announcement: Lev Is No Longer At Sbn.

~ He Said He Plans To Help Finish Off Any Scrs He Was On.

~ He Was A Team Lead. We Should Get A New Leader For That One.

~ Ccb-131 Was On Hold Pending 187, Which Is Still In The Queue. Won't Make The Next Build. Not Urgent.

~ We Need To Make Sure That's It.

~ He Was On The Team For Ccb-185, Primary Results Summary.

~ We Should Keep What He Was Involved With In Mind.

Have A Good Weekend.

Meet Again In Two Weeks.

title: DDWG Notes 2017-07-06

layout: default

date: 2017-07-06

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# July 6, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, R. Joyner, D. Kazden, J. Mafi, J. Padams and A. Raugh

Observers: B. Mueller and J. Stone

## Email sent July 6, 2017 from M. Gordon: Updated DDWG telecon Agenda Thursday 7/6 (No attachments with this update or the original draft sent July 5, 2017)

## DDWG Agenda

Here is an updated agenda for today:

We have 4 SCRs on which we may be able to vote:

CCB-182 – Mitch – Clarify whether CDATA is allowed **\*\*(Voted Yes)\*\***

CCB-180 – Bea – Clarify whether namespace abbreviation in labels must correspond to namespace id **\*\*(Voted Yes)\*\***

CCB-181 – Joe – Clarify whether newlines are allowed in PDS DSV 1 **\*\*(Discussed)\*\***

CCB-178 – Steve, Anne, Ed - change the type of Internal Ref IDs **\*\*(Discussed)\*\***

New SCRs (from tiger teams)

CCB-190 - Add 'space' as field delimiter - submitted by Jordan **\*\*(Discussed)\*\***

CCB-191 - Add ISRO to Namespace Registry - submitted by Steve, needs detailed documents change **\*\*(Discussed)\*\***

Status check:

CCB-185 (Joe) Allow multiple instances of PRS in Context Area. **\*\*(Will be ready next week)\*\***

CCB-188 (Jordan) Allow GML as a format in Product Observational. **\*\*(No Progress)\*\***

CCB-156 (Anne) LDD Inconsistencies **\*\*(Will be ready in two weeks)\*\***

tentatively scheduled for discussion and votes next week:

CCB-173 - Product Update

CCB-174 - Composite Structure Class

CCB-184 - xs:choice validation issue

CCB-191 - Add ISRO to Namespace Registry

# DDWG Telecon

People reported trouble with getting WebEx to call them.

We have a smaller group than usual.

Items on the calendar are much closer then they appear.

We have four SCRs ready for a vote.

## CCB-182 - Clarify whether CDATA is allowed See <https://pds-jira.jpl.nasa.gov/browse/CCB-182>

Question: Are there any questions or comments or can we go straight to a vote?

Answered with Another Question: Did we ever get an answer from Sean?

Answer: The tools act as we would expect.

\*\*The Vote -

RS - Yes (via email proxy)

Rings - Yes

PPI - Yes

NAIF - Not Present

GEO - Yes

IPDA - Yes

EN - Yes

IMG - Yes

ATMOS - Yes

SBN - Yes\*\* (Comment - still have concerns about this. Answer is that it will be scrutinized during peer review)

## CCB-180 - Clarify whether namespace abbreviation in labels must correspond to namespace id See <https://pds-jira.jpl.nasa.gov/browse/CCB-180>

Last week this wasn't ready for a vote.

Question: Have the outstanding questions been answered? Is there a method for validation?

Answer: This is ready and Sean says there will be a validation tool.

Another Question: How? Is he going to hard code the validation into the validate tool?

Answer: Unsure, but he said it won't be a problem. It will be work.

~ PDS4 label validation will have to read the namespace registry. The change request is reasonable.

~ Still not telling me how this is going to be validated.

This is getting beyond our preview. We said we want to use PDS namespace IDs and the validate tool would make that happen.

~ Want some indication that the system/tool group won't come back in five months to say they can't do this.

~ If they get it wrong we'll tell them. We're not tool developers. We're changing the standard.

~ It shouldn't take them five months.

~ Five months is not a random amount of time - it would be to make the next build.

~ The requirement goes into this build and into the tools queue. Their to-do list.

~ We can't have a requirement that can't be validated.

~ We have a bunch of them.

Question: Is there a list of things that need to be manually validated?

Answer: We can request one from Sean. **(Action Item)** ~ The main point is that we need to make a request of Sean that he provide a list of requirements that are not currently being validated - the things on his to-do list - so we can manually validate them.

~ We want to make sure we have all the necessary pieces.

Someone reports that Sean has said that this (CCB-180) is reasonable. He had a few different options for implementation.

~ Someone else can think of at least two ways to do the validation. Schematron is probably not the best option.

Question: Any other comments?

Answer: In the TA it says there is no impact to the documents, but the SCR asked for changes in the documents. I think that's a lien. Not sure who did the TA.

~ Probably Steve H. He's not on the call today. Ron can let him know that this does affect some of the documents - for example the DPH and Concepts document (which has a footnote about using reasonable names). The tiger team did a good job to catch that.

~ Team reports that the documents were not confusing, but they were long.

~ **Action Item to Ron** to let Steve H know about this lien.

**The Vote -**

SBN - Yes

RS - Abstain (via email proxy)

Rings - Yes

ATMOS - No

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Abstain

NAIF - Not Present

PPI - Yes

Six yes votes. This passes.

**CCB-181** - Clarify whether newlines are allowed in PDS DSV 1 See <https://pds-jira.jpl.nasa.gov/browse/CCB-181>

Not sure where we are going with this. We had wanted some clarification from Sean on the implementation and the affects on the tools. Sean hasn't has time to respond. Reluctant to let this drag on much longer.

Question: Maybe we could give it another week? We could vote by email if Sean answers.

Answer: We need Sean to say it's achievable. We need to know that if we impose this rule that it will not break the IO suite.

~ We could make sure the change request says what the the expected functionality of the tools is so that Sean can access their behaviour and know the expectations going forward.

~ Good Suggestion.

~ **Action Item - Joe** will edit the change request.

Question: Was Sean sent the test data?

Answer: Yes.

Another Question: Did the test data say what the expected treatment should be?

Answer: No.

~ Was hoping that when Sean said the tools handled the changes that it would include the expected treatment.

We have a way forward. Joe will update the SCR and alert Mitch when it it done. Mitch will email Sean to get on this so we can vote and know if it will affect the IO suite. **(Action Items)** ~ Joe will circulate text for the SCR updates to the tiger team and hopes too turn it around in a day.

## CCB-178 - Internal Reference Implementation See <https://pds-jira.jpl.nasa.gov/browse/CCB-178>

Question: Any questions or comments?

Another Question: Does everyone understand what we're trying to do? The TA included a very old version of the DPH. The latest version has local identifier with a space in it, which is a no-no. If we make this change we need to correct the TA.

~ The SCR doesn't require indicating in SR a restriction on characters because that is imposed by XML. A hidden requirement. We should include in section 5 of the SR that there is a character restriction for local identifiers. They have to start with a dash or a letter, no white space. We need to make it clear.

~ The same restrictions for tag names in data dictionaries.

~ Just say that.

Question: Doesn't the DPH talk about that?

Answer: There's an appendix that discusses that.

~ Non-colonized name. Same for attribute name, class names... same definition for local identifiers.

~ Section 6D.1- local identifiers- talks about characters. That section needs clean up.

~ The constraints for ASCII are over and above what XML requires. XML is happy to let you use UTF-8 characters. It's not constrained to ASCII.

Question: The start character has to be a dash or a letter - if it's restricted to ASCII, how do we validate that?

Answer: We can restrict it in xml schema by changing base type to xs:id, not xs:string.

~ Regardless, the SR section needs to be redone and the TA doesn't say that.

~ The proposed solution needs the replacement text.



Steve is out of town. Anne is unable to type for five days.

~ Maybe someone on the team can take dictation. We want to vote on this next week.

~ Anne is unable to initiate communication with team. People have to call her.

Question: How about we assign this to Steve - the team leader?

Answer: Yes.

~ It's probably only a paragraph.

~ Action Item - Ron\*\* will tell Steve.

# Two New SCRs

We have two new SCRs. We won't vote on them until next week.

## CCB-191 - Add Indian Space Research Organization (ISRO) to the Namespace Registry See <https://pds-jira.jpl.nasa.gov/browse/CCB-191>

Steve wrote this one from the IPDA meeting. The Indian Space Research Organization wants to play too. Steve will be the chair and entire team for this one. The documents and registry need updating.

~ Would hope that this is an easy update.

~ The SR lists the available namespaces. This is trivial. Should be a no brainer. Expect to vote next week.

## CCB-190 - Add 'Space' delimiter to field delimiter permissible values See <https://pds-jira.jpl.nasa.gov/browse/CCB-190>

IMG has MSL mastcam data products that include delimited tables to form a mesh product and use a space as a delimiter. Need to add that to the permissible values.

Question: Single or more spaces?

Answer: Single.

Another Question: Enclosed in quotes?

Answer: No.

The issue for the team is how to constrain this.

~ If you let one DP use a space delimiter others will want to. Hard to tell if one space or two. Strikes me as a bad idea, but I don't use delimited tables.

Question: We need a team who are experts on delimited tables... Joe?

Answer: Joe will be on the team.

Another Question: Who else? Reluctant to add Jordan, his plate is too full. Other nodes?

Answer from Jesse Stone of PSI: This is very important for PSI. Will be on the team.

~ The team will be Joe, Jesse and an IMG person.

\*\*Action Item for Team\*\* - get a spreadsheet with milestones to Mitch by next week. We need to decide if we will allow this, what the constraints are, etc.

---

Comment on CCB-191 - someone just looked at the SR. Title of the section says it has example namespaces - not a complete list. Not sure it needs updating.

~ Maybe there should be a complete list on the PDS web-page.

~ That should help Steve. Maybe he can just remove the comment if there's no exhaustive list of namespaces.

#### # Status Check

CCB-185 - multiple instances of PRS - Tiger team is played out, done what it's going to do. Team leader needs to update the SCR, but it's ready for the DDWG. Will be on agenda for next week. Still needs a TA.

CCB-188 - GML - Team leader is backlogged. Not looking likely for 1.9. A lot of work - can't imagine there being enough time.

CCB-156 - LDD Inconsistencies - Very high on team leader's list. Should be ready in two weeks.

CCB-174 - Composite Structure - needed outcome from CCB-178, so maybe a problem for next week.

We need a new SCR for product update.

The plan is that we will vote on CCB-184 and CCB-191 next week.

By the end of next week we should have most SCRs ready. We will complete a fair number of SCRs. About ten won't make the build.

Meeting next week. Will try to have the agenda out early.

DDWG Notes 2017-07-13

**Data Design Working Group Telecon  
2017-07-13  
Announcement and Agenda  
(Meeting Notes Follow)**

From: mgordon@seti.org

To: pdsddwg List, Carole Neese, Jesse Stone, Beatrice Mueller

Subject: DDWG telecon Agenda Thursday 7/13

Date/Time: 2017-07-13T07:27:00 PDT

Here is a slight update to the agenda – same SCRs, but at the bottom I’ve shown the order in which we’ll discuss them.

Mitch

This week we will try to vote on:

CCB-174 – Composite\_Structure Class

CCB-178 – internal reference attributes to xs:ID and xs:IDREF

CCB-181 – Clarify whether newlines are allowed in PDS DSV 1

CCB-184\* – xs:choice validation issue

CCB-185 – Allow multiple instances of PRS in Context\_Area

CCB-191 – Add ISRO to Namespace Registry

\* Doesn’t involve IM, so if we pass it, it will go straight to implementation w/o CCB review.

We will discuss:

CCB-192 – Add Product\_Metadata\_Supplemental (this is a proposed replacement for Product\_Update). I very much want to have a vote on this by next week, so please include reviewing this SCR in your preparation for the discussion.

We’ll also be looking for a status update on the following, including an assessment of whether the SCR is likely to make the build cut off:

CCB-177 – Jordan - Source Product Identification

(no tiger team spreadsheet yet)

CCB-188 – Jordan – Allow GML

CCB-189 – Steve – Query model for science bundles

CCB-190 – Joe – Add space as a delimiter

Discussion Order:

CCB-191

CCB-181

CCB-178

CCB-174

CCB-184

CCB-185

CCB-192

CCB-177

CCB-188

CCB-189

CCB-190

# Data Design Working Group Telecon

## 2017-07-13

### Meeting Notes

Convened at 09:30 PDT.

**Attendees:** Maria Banks, Christina De Cesare, Mitch Gordon, Ed Guinness, Lyle Huber, Steve Hughes, Ron Joyner, Tanya Lim, Masha Liukis, Joe Mafi, Stef McLaughlin, Jordan Padams, Anne Raugh, Boris Semenov, Dick Simpson, and Jesse Stone.

#### Discussions and Decisions:

**CCB-191** [Add Indian Space Research Organization (ISRO) to the Namespace Registry]: Gordon would like to approve something today; he thought CCB-191 would be a good place to start. Simpson asked whether adding to the Namespace Registry was a DDWG issue. Hughes said yes; it affects the Information Model. The votes:

Yes: Huber, Guinness, Hughes, Padams, Lim, Semenov, Mafi, Gordon, Simpson, Raugh.

No: none.

Abstain: none.

**CCB-181** [Clarify Whether Newlines are Allowed in PDS DSV 1]: There has been no additional feedback on tool behavior from Hardman. Mafi has edited the SCR to include a list of expected tool behaviors if CCB-181 is passed. Raugh would be happy to have this constraint on <CR> and <LF>, but she expects an objection within the next year from someone who wants to include the forbidden characters in fields. If we are really going to stick with this, she would be in favor. Simpson wondered whether the SCR should be targeted to Field\_Delimited and Field\_Character rather than PDS DSV 1. Mitch said this was a possibility. Gordon asked whether Simpson needs embedded <CR> and <LF> for radio science files; Dick is using Stream\_Text, so the answer is "not at the moment". Gordon proposed to delay voting by a week; Mafi will revise so that constraints are placed on Field\_Delimited and Field\_Character and leave PDS DSV 1 alone. Discussion followed on whether a note should be included in SR 4C.1 about the constraints on fields; Simpson said there are other constraints, which may not be apparent from PDS DSV 1. Mafi will send e-mail when JIRA has been updated.

**CCB-178** [Internal Reference Implementation]: Mistakes were identified in the SCR last week; Gordon and Joyner have made updates. Raugh has found reference to a hyphen which should be an underscore; Gordon said this will be corrected. Anne said that ASCII blanks and ASCII commas could be used in <local\_identifier> under current standards; but Simpson and Gordon both disagreed. However, Guinness pointed to a DPH appendix where a <local\_identifier> with a space is used as an example. Apparently, the validation software is not catching this; DPH examples need to be rechecked for compliance. Anne also wondered why upper case letters are not allowed under the SCR. There was consensus that upper case should be allowed. Otherwise the proposed list, which is a little different from what is currently in SR 6D.1, is correct. Hughes asked that BasicLatin be the base data type and that should be included in the requested changes. Gordon called for a vote; Simpson said he wanted to see the revised version first. Votes:

Yes: Raugh, Gordon, Mafi, Lim, Guinness, Hughes, Padams, Huber

No: Simpson

Abstain: Semenov

Passed with several liens, some of which may have already been incorporated in real-time.

**CCB-174** [Add the Composite\_Structure Class]: Raugh has grave concerns about implementation — especially about aggressive abuse. She would like to see this concept approved but with a different implementation. Hughes said the DNs will have to control use. For example, he assumes that GEO will decide what a spectral cube will look like and that data providers will follow the instructions. He said that every time a new proposal for a specific Composite\_Structure comes forward, it should be submitted as an SCR and be run through the review process. Use of a specific Composite\_Structure would not be allowed unless approved. Hughes agreed with Simpson that more specific language needs to be drafted for the IM and SR changes. Hughes said that an attribute like <type> would be needed to narrow the uses.

Raugh is concerned that the components of a composite structure may have no utility except as they are combined under Composite\_Structure. She would not be able to look at the core of a composite structure in any meaningful way because all of the display settings are given with respect to the composite structure. Guinness said the earlier proposal to require display settings was derailed by examples that were complex; the label for some of these composite structures might be readable by machine, but human users would become hopelessly lost. Gordon needs Composite\_Structure for data coming under v1.10.0.0 (an image product with back planes). Simpson suggested looking at some of the MAVEN pseudo-composite structures that King and Mafi developed at PPI to see how they would fit? Hughes and his tiger team will continue with development of the SCR.

**CCB-184** [The xs:choice Element Does Not Validate as Expected When minOccurs and maxOccurs are both '1']: Gordon said this SCR will not go to the CCB; the proposed change is a bug fix to LDD Tool. Hughes will take responsibility for the correction. IPDA is developing dictionaries without LDD Tool; Lim would like updated documentation on dictionary development in those environments. Gordon doesn't believe that it is possible to complete dictionary development without using LDD Tool; but he thinks IPDA development should not be hindered by the bug. Votes:

Yes: Semenov, Mafi, Gordon, Simpson, Raugh, Lim, Guinness, Hughes, Padams, Huber

No: none

Abstain: none

**CCB-185** [Allow Multiple Instances of Primary\_Result\_Summary in Context\_Area and File\_Area\_Observational]: Simpson is concerned that approval undercuts the meaning of "primary". On the other hand, Raugh can see reasons for listing more than one "result". Further discussion was postponed to next week; opinions should be posted to JIRA.

**Status Updates:**

CCB-177: Padams owes Gordon a spreadsheet. Telecon scheduled next week.

CCB-188: Padams said the target is now v1.10.0.0

CCB-189: Hughes doesn't believe this will make v1.9.0.0; but the proposal is very similar to what we did for Collection. There is no tiger team. Hughes will lead; Joyner, Huber will join. Mafi volunteered King; Lim will find someone from IPDA.

CCB-190: Mafi will wait for v1.10.0.0. Raugh is worried that this change might be rescinded within a year.

**Agenda for Next Week:**

Discussion and votes on CCB-192, 177, 189 (possibly), 185, 156 (possibly), and 174. Huber will probably not be on; he will contact Neakrase as a substitute.

**Future Business:**

Slavney has volunteered to be the lead on CCB-193; the SCR only affects GEO. Gordon would like a spreadsheet with milestones.

**Adjourned 10:57 PDT.**

DDWG Notes 2017-07-20

title: DDWG Notes 2017-07-20

layout: default

date: 2017-07-20

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# July 20, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, J. Padams, A. Raugh, B. Semenov and R. Simpson

Observers: M. Banks, S. Besse (alternate for T. Lim), C.De Cesare, M. Liukis, L. Neakrase (alternate for L. Huber), S. Slavney and J. Stone

## DDWG Agenda

(Included in email sent July 18, 2017 from M. Gordon: preliminary DDWG telecon Agenda Thursday 7/20)

Discuss and vote:

CCB-193 Add geo & rs to discipline name **\*\*(Discussed and Voted to pass it to CCB with a lien)\*\***

CCB-192 Replace product update with product metadata supplemental **\*\*(Discussed - Will discuss again next week)\*\***

CCB-185 Allow multiple instances of PRS in Context Area **\*\*(Discussed and Voted to pass to CCB with a lien)\*\***

notes:

CCB-193 should be trivial, it's even a short read.

CCB-192 is not a short read, start now. This one really needs to make it into IM 1.9

CCB-185 was touched on last week. We requested everyone review and post comments, if any, on JIRA. No comments so far.

Discuss and maybe vote if the SCR is updated in time. All three of these need to be updated before being reviewed or discussed. Respective TT leads should notify the group when the changes have been made in JIRA.

CCB-181 – Joe – Clarify whether newlines are allowed inside fields (requested change to the SCR is to shift the focus from the DSV standard)

CCB-156 – Anne – LDD Inconsistencies

CCB-177 – Jordan – Source Product Identification **\*\*(Briefly Discussed all three)\*\***

Discuss if there is time:

CCB-174 – Steve – Composite Structure Class **\*\*(Not Discussed)\*\***

I need updated spreadsheets for CCB-177 & CCB-181 please.

For those interested in our progress since we reformed the DDWG in March, we've closed 10 SCRs. I anticipate (optimist you know) closing 3 more this week and an additional 4 next week for a total of 17 for build 1.9, plus superseding CCB-173.



We have 4 additional SCRs for which we have tiger teams, but these are not projected for this build, and 8 (mostly low priority) SCRs for which we have not yet assigned tiger teams.

# DDWG Telecon

People had a lot of trouble with WebEx.

## CCB-193 - Add Geosciences and Radio Science as permissible values for discipline name See <https://pds-jira.jpl.nasa.gov/browse/CCB-193>

The problem statement for CCB-193 points out that "The attribute discipline name, used in the Science Facets class under Primary Result Summary, is missing values for Geosciences and Radio Science. The SCR proposes having "Geosciences" and "Radio Science" added as permissible values for discipline name in the Information Model and Data Dictionary.

(Note taker joined this conversation after it had begun.)

There is no requirement for sub-facets. They are useful, but not required. Don't always make sense.

~ Did it so description would be useful. We wanted the most descriptive facets possible. Use the most specific thing possible to facilitate the best search. Don't think the list has enough possible facets.

~ This is optional.

~ But purpose behind the original design.

~ Some nodes would never have used it, but we have adopted this query model, so made the comment that we need different values here. This is not useful for GEO.

~ Looking at the query model, someone sees domain and wavelength name, etc, but doesn't see facets.

~ High level discipline name is usually subdivided with facets. Concerned that that's not here.

Question: How will this be used?

Answer: In facet based search.

~ People don't use them. People are not using facets. We could write a new SCR.

~ Facets are not harvested. The query model defines what is harvested.

~ So the least you can do.

~ Which is what people wanted.

~ The query model is for the central catalog. We can define greater depth for the nodes.

Let's get back to the SCR.

It's difficult to make a list of sub-divisions for geosciences because we don't see it in progress yet. Not sure what's needed. Propose that we begin at the high level with geosciences and radio science and add more specific stuff later.

We will vote for the SCR with a lien. We will leave in adding geosciences and radio science and remove adding the domain attributes rings and dynamics.

\*\*The Vote - CCB-193 with a lien

SBN - No

RS - Yes

Rings - Yes

PPI - Yes

NAIF - Abstain

IPDA - Yes

GEO - Yes

EN- Yes

IMG - Yes  
ATMOS - Yes\*\*

This passes with a lien. Ed and Susie will make corrections to the SCR. \*\*(Action Item)\*\*

The other issue is that the query model is not addressing the facets that we need. Facet 1 is restricted to a higher level. This is something to discuss in the future. Also, facets for GEO in future.

## CCB-192 - Add Product Metadata Supplemental See <https://pds-jira.jpl.nasa.gov/browse/CCB-192>

This SCR has been around a long time, originally as product update. It was put in as a place holder at the beginning with no content. About a year and a half ago a prototype was built off line and it was inadvertently added in without going to the CCB. The tiger team has scaled it down and made it useful, but people have issues with it. It's hard to even discuss. Wrote product metadata supplemental to get around the assumptions. The real task is after data is submitted metadata can be improved, better geometry, etc. We generate a lot of metadata. Need somewhere to put it. It was an issue for LADEE. ATMOS needed to add an index table to update the metadata. Changes were made today in the SCR - the problem statement was updated and we removed the subclass with only description in it, added it as required to the citation area - so now there's a file area class and one other. Rings needs this in the build. It is not realistic to re-write labels every time.

Some comments- the requirement that field name identifier attribute name map to each field must correspond to attribute name in one of the namespaces. The example doesn't show how that works.

Plus, the names are different in different DDs.

~ Hard.

~ Field names require they be from other namespace - hard to enforce. TA says there's no impact, but you can't validate. Name not corresponding to what it should is huge.

~ In the example, tried to list names of objects in fields of view, so had to have a target identification class for field name and type for complete identification of target. If it was in the Rings LDD it would have captured context. Name of field has to track back to context. Wish Sean were here. X-path would be perfect, but not sure we could be as generic as we need.

~ X-path is completely generic. This makes more assumptions than x-path. Two fields could have exactly the same specification. Not sure how you would map that.

Maybe this should be worked off-line.

~ The tiger team made this solution. Every time they bring the solution to the DDWG are told there's a problem. Can't see it, so can't fix it. The first thing in the table is the LIDVID. If there are eight products - images - and if there are several targets, need to include all that. PDS4 doesn't have target name as an attribute. Have to use target identification name and target identification type. Those get repeated several times.

~ That's why you should use x-path. Can get to the attributes with x-path. Thought that's why we use x-path.

Question: How would this be better if we used x-path?

Answer: Sequential identifiers.

~ It's not in the label. In outer planets missions there are multiple targets. Images capture targets sometimes that aren't in the label. That's new metadata.

~ Someone agrees that's why you would use x-path. The point is that x-path is more explicit than target identification name. It's a lot easier to figure out - to tie to search. Makes most logical sense to see where this is happening.

~ Still trying to understand the example. It doesn't tie to a specific place in the label. Think maybe a see a slot name that can update the registry, but if this is to update the registry, not

sure where the part is that says if this is an addition or a replacement. If it's not to update the registry, than not sure of the intention of this. Trying to understand how this would be used.

~ Rings used this is PDS3 for search. They generate this. They figure out what is actually in images, walk across it, make a table, put information in and add parameters that weren't in the original label. They end up with several tables for each

product. It's done for every product. Rings doesn't know how to write an x-path to do this. It is supplemental information - not to overwrite what's there.

Question: Is there a different slot name for this?

Answer: Sean was on the tiger team. He was happy. We weren't going to overwrite anything. This would be supplemental. We will put off the discussion for today and work on x-path.

~ X-path was the original thinking. X-path is implementation. Wanted independence from implementation.

~ No. Not sure x-path is right if that's the use.

~ Trying to build a resource to be able to search - to populate additional slots. Would be available to end users.

~ Then the missing bit of documentation is a paragraph about how to define names for fields so they don't collide. This needs a technical level of explanation about how to name things.

Question: Isn't this more detail than we need for this SCR?

Answer: This needs to be documented. Documents are not always in line with release. The rest is how you implement it. Might be appropriate to put in documentation for the harvester.

~ Original product update was a similar product that included reference to the update.

Question: Is this a part of the archive?

Answer: Yes, and it goes through peer review.

~ So we have laid x-path to rest. It's not the right approach. Need to require identifier version number for the node used in table.

Another Question: If a rings attribute is used, do I need to know the version of the LDD where that came from?

Answer: End users might want it. If we use a DD or LDD for some of the field names, we should identify that dictionary in the label.

~ Not sure.

~ If it's a product metadata supplemental the file should list the IM version and DD versions. Part of the XML overhead.

~ Unenforceable.

~ Peer review.

~ To require peer review you would need to know what was in the original label.

~ No, you could write a schematron rule.

~ I don't think so.

~ Maybe not.

Question: Any further questions?

Answer and Another Question: Yes. Since there are many target names and types, how do you know what's related?

Answer: Good point. The columns are pairs. You need to look at the documentation.

Another Question: What if I wanted to add a target LID? What would it be?

Answer: Not sure. Guidance would be to do something reasonable. Maybe use internal reference. Thinks the sample label says the columns are pairs, maybe they should be numbered.

~ You could use grouped field.

~ Not a fan of groups. Reluctant. Want to keep this fairly simple.

Question: Having put x-path to rest, are we ready for a vote?

Answer: Thought we were waiting a week.

~ That was when we thought the team needed to learn x-path.

~ This is so fluid. Not ready to vote.

~ There's a lack of sufficient information still, and we haven't read the registry and harvester documentation. We might need to test that we get the result we want. Not sure this is sufficient now.

The question is if end users can use the product.

~ There are assumptions that things next to each other are related - they are pairs. As a human I can see that, but machines wouldn't know that. There might be problems when it's read in. Not sure an end user can use this without a lot more.

~ Groups might be appropriate.

Question: How many, other than the two who spoke, are feeling reluctant to vote?

Answer: Someone shares the concerns. Programmatically we need some rules.

Tiger Team will do another set of examples. **\*\*(Action Item)\*\***

For those of you substituting today, please explain that we decided that x-path is not the way and please don't bring it up again.

## CCB-185 - Allow multiple instances of purpose and processing level (in Primary Result Summary) in Context Area and File Area Observational See <https://pds-jira.jpl.nasa.gov/browse/CCB-185>

There were no new comments on this.

~ After the last meeting, concern was expressed that there would be problems in the harvester if we made this change. Sean was emailed and he said it would have no impact.

~ Thought we decided to allow things that are single valued to be multi-valued.

~ Someone suggested making purpose and processing level multi-valued, but there's also sometimes a need for primary results summary to be multi-valued.

~ Thought we decided no unique associations - so it wouldn't matter.

~ Someone sees what is being said, but not sure they understand for harvester.

~ Sean said if we implement this it's not a problem for the harvester.

~ It's a matter of tidiness. Not sure software will be able to figure it out. The model for the primary results summary is hierarchical, but for search it's flat.

~ Yeah, the end result is if primary result summary says this is science or engineering it will be found either way.

~ The model was designed for modelers, but the search engine doesn't care about the hierarchy.

~ An artificial split is unnecessary.

~ That's why we should allow multiples - can't see any other reason to separate except for modelers.

If the primary results summary is for science or for engineering we might need to go through a lot of hoops to get the associations made. Might be less work to have two.

~ No one cares about the associations. Might be easier to just put it all in for search.

Question: Any comments?

Answer: The point is there are parameters that might be different if you are doing more than one primary results summary. Multiple instances might be the best way to make the associations.

~ Primary results summary is just a summary to accommodate search.

~ We could flatten it into a field called keywords and it would still work.

~ Primary results summary contains four keywords. Can see why we might want some of them multi-valued, could include everything that you need. It's really just a collection of concepts. It seems more elegant to just have one primary results summary.

~ Someone is not sure they agree, but because of the way the registry is implementing it it doesn't matter. You get a list of diagnostic parameters you can search on. Perfectly happy keeping primary results summary single and making purpose and processing level multi-valued.

Someone suggests that there are a lot of different uses for primary results summary at the different levels (bundle, collection, products). Can see multi-valued for bundle and collection level, but not so much for base products.

~ It depends on the purpose. The main issue is that we have base products with multiple purposes and processing levels. Part of it depends on the purpose of the primary results summary. If primary results summary is to define what the purpose is for a product than it should be alone, but if it's to make all the data find-able than it needs to be multi-valued.

Question: Other comments?

Answer: (Silence)

~ **\*\*Action Item - Joe\*\*** will revise the SCR to make purpose and processing level multi-valued. Description will not be made multi-valued. Primary results summary will not be multi-valued.

Question: Are we ready to vote on this with that lien?

**\*\*The Vote -**

ATMOS - Yes

EN- Yes

GEO- Yes

IPDA- Yes

NAIF - Yes

PPI - Yes

Rings - Yes

RS - No**\*\*** (Comment: want to see the final version first) **\*\*SBN - Yes\*\***

**## Status**

Next week we will look at CCB-192 again with more examples.

CCB-181 - Clarify whether newlines are allowed inside fields

Question: Has the SCR been updated?

Answer: Not yet. The tiger team is having a side discussion on where to put the comment. Haven't updated yet.

~ Hopefully next week.

CCB-156 - LDD Inconsistencies

Managed to get some work done on this. Want to make a set of best practices.

Question: This will be a change to documentation?

Answer: Need to look at the documentation.

~ CCB-156 is not build driven.

~ True. Think the most efficient approach is to have the build and get the new LDD tool out, then make the updates.

Requires waiting.

~ This will be moved to 1.10 and the urgency will drop to low.

CCB-177 - Source Product Identification Team is still discussing this. Hopes to have something for next week.

CCB-174 – Composite Structure Class

Ready for discussion.

Comment on CCB-156 - Need to coordinate on what does go in 1.9

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Question: Any last comments?

Answer: Next week there is a scheduling conflict with the Mars 20/20 telecon. Not sure how long it will last, but it is before this meeting.

Question: Will anyone be inconvenienced if we start one hour later next week?

Answer: Not good - someone is heading out on travel.

Next meeting will be next week - 10:30 pacific, 1:30 eastern.

**Data Design Working Group Telecon**  
**2017-07-20**  
**Announcement and Agenda**  
**(Meeting Notes Follow)**

From: mgordon@seti.org

To: pds-ddwg2@list.jpl.nasa.gov, lneakras@nmsu.edu, sbesse@sciops.esa.int, SLAVNEY@wunder.wustl.edu

Cc: neese@psi.edu, jstone@psi.edu, mueller@psi.edu

Subject: preliminary DDWG telecon Agenda Thursday 7/20

Date/Time: 2017-07-18T13:27:00 PDT

Hi all,

Here's the heads up so you can start (or even better, continue) your preparation for this week's fun filled, action packed telecon.

Discuss and vote:

CCB-193 Add geo & rs to discipline\_name

CCB-192 Replace product\_update with product\_metadata\_supplemental

CCB-185 Allow multiple instances of PRS in Context\_Area

notes:

CCB-193 should be trivial, it's even a short read.

CCB-192 is not a short read, start now. This one really needs to make it into IM 1.9

CCB-185 was touched on last week. We requested everyone review and post comments, if any, on JIRA. No comments so far.

Discuss and maybe vote if the SCR is updated in time. All three of these need to be updated before being reviewed or discussed. Respective TT leads should notify the group when the changes have been made in JIRA.

CCB-181 – Joe – Clarify whether newlines are allowed inside fields

(requested change to the SCR is to shift the focus from the DSV standard)

CCB-156 – Anne – LDD Inconsistencies

CCB-177 – Jordan – Source Product Identification

Discuss if there is time

CCB-174 – Steve – Composite\_Structure Class

I need updated spreadsheets for CCB-177 & CCB-181 please.

For those interested in our progress since we reformed the DDWG in March, we've closed 10 SCRs. I anticipate (optimist you know) closing 3 more this week and an additional 4 next week for a total of 17 for build 1.9, plus superseding CCB-173.

We have 4 additional SCRs for which we have tiger teams, but these are not projected for this build, and 8 (mostly low priority) SCRs for which we have not yet assigned tiger teams.

Regards,

Mitch

DDWG Notes 2017-07-27

title: DDWG Notes 2017-07-27

layout: default

date: 2017-07-27

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# July 27, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, S. Hughes, D. Kazden, T. Lim, J.

Mafi, S. McLaughlin, J. Padams, A. Raugh, B. Semenov and R. Simpson

Observers: M. Banks, C.De Cesare, M. Liukis and J. Stone

## DDWG Agenda

(Included in email sent July 25, 2017 from M. Gordon: DDWG telecon

Agenda Thursday

7/27)

Discuss and vote:

CCB-181 – the SCR has been updated to prohibit CR & LF within a delimited field **\*\*(Discussed and voted to approve it with a lien to change the wording)\*\***

CCB-192 – Product Metadata Supplemental (Ed will moderate the discussion) – new example has been added to SCR

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

CCB-177 – Specify Source Products – SCR still needs to be updated.

Jordan will send an email to the group when it is ready.

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



Discussion-

CCB-174 – The SCR is ready now for discussion.

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

# DDWG Telecon

## CCB-181 - Clarify whether newlines are allowed in PDS DSV 1 See

<https://pds->

[jira.jpl.nasa.gov/browse/CCB-181](https://pds-jira.jpl.nasa.gov/browse/CCB-181)

This was a request to change the focus from updating the standard to placing restrictions on fields. Tiger team leader felt very

uncomfortable adding restrictions to field character since the original SCR was limited to delimited tables. Thought that was out of scope.

Believes someone is writing a new SCR to cover that. Added a note at the DSV specification to see table delimited. Comments have been made in jira. Likes the suggested wording in jira for the SCR. Wants to update the SCR again.

Question: Any comments?

Answer: (Silence)

A comment was put in jira that there should be a change to the IM.

~ Yes, that's the core issue.

~ To add restrictions in schema or schematron that wouldn't allow...

the issue is there's no way to check content of a data file.

~ Best way would be to make them prohibit carriage return line feed.

~ Someone defers to people who know better.

Question: So, we want tools to handle this correctly. Make sure there are correct number of fields in a file - that records aren't truncated. Any other changes?

Answer: Yes. We should still change the wording of 4C.1 to the suggested wording in jira.

Question: Any other comments?

Answer: (Silence)

**\*\*The Vote - to approve CCB-181 with a lien to change the wording  
ATMOS - No IMG - Yes EN - Yes GEO - Yes IPDA - Yes NAIF - Abstain PPI  
- Yes Rings - Yes RS - Yes SBN - (Comment and side conversation  
followed by a Yes)\*\***

The comment and side conversation:

Confused. We were talking about a change to the IM to prevent CRLF in delimited tables by hand - as data type. Is that here?

~ Thought we said tools.

~ Tools can't handle it unless there's a constraint.

~ We don't have tools to check content.

~ Not seeing anything that actually implements the change. Only one data type allows CRLF. We need to prohibit it.

~ People are uncertain of which data type.

~ Maybe ASCII short string token?

~ Unsure what's allowed in field delimited, so not sure the SCR solves the problem.

~ It's ASCII.

~ Yes, but see no indication we've solved the problem.

~ Most generic ASCII token.

~ Okay, good.

~ UTF-8?

~ Yes, but token. White space collapsed.

~ XSD - CRLF gets converted to a space. Fine, if that's there. Then fine. Votes yes.

CCB-181 passes with a lien. **\*\*Action Item - Joe\*\*** will clean up the text in SR.

~ Done.

Ready to go to the CCB. The CCB did not look at CCB-193 or CCB-185

yet. Will in time for the build. Not expecting any issues.

~ EN is working on the IM to accommodate them.

## CCB-192 - Add Product Metadata Supplemental See <https://pds-jira.jpl.nasa.gov/browse/CCB-192>

Ed will moderate this part of the discussion.

CCB-192 is a proposal for product metadata supplemental. The idea is to list metadata that's not in the label of a product. Could update values. There's been a lot of email about this and some jira discussion. Haven't fully digested it all yet. In emails, it has been argued that there is a need for this. Would have some restrictions over a typical table. It's not really observational data because it's not from an observing system.

Having a specialized product would be useful to users. It would clearly say what it's about. It would be easier than using product ancillary. There seems to still be confusion.

This deprecates product update. Also confusion about if it's required to be ingested in the registry. Unclear what people mean by "the registry." There's a searchable catalog at EN, but it only covers collections, not basic products. Maybe this would go in individual registry or node specialized search. Unsure. Many additional points have been raised.

They might be liens.

Two things - these examples are real PDS3 products from Rings and OPUS. Python code populates their database for search. Would expect it to be easy to write code for local search engines. There are HST observations that all nodes are involved in. Rewriting metadata. Will go in tables. All nodes will coordinate on this. Sees this as having utility for all nodes. Not intended to have new labels. No new product. Product update still needs to be modified and name needs to be cleared up. Proposing product metadata supplemental- a product just for metadata.

Best if people read the comments in jira, but there are still some differences over field names in product metadata supplemental. Also concern over how it will be handled in the data system.

Unsure how this will work. Might be some advantages in making this a variation of product ancillary. Product ancillary is what's left when things don't fit other places. Should look at product ancillary even though it's not limited to metadata. Can see how this might also be used for other things. Also, the TA. We're getting rid of three classes and adding new ones - not sure the TA is up to date.

~ Seems worthy of reviewing the TA.

~ Yes, but would also like to comment on how the system will handle this. This group is supposed to focus on the model - not worry about implementation. Sean says he'll make it work. Worried we're holding this up. We need to allow both sides - technology and model to both evolve at own speeds. Not sure why we're worried regarding the technology.

~ Good point. Sean was on the tiger team, said he had placed hooks to accommodate getting supplemental information. He just needs to know where to get it. One of the comments, about product ancillary - one problem is how to distinguish metadata versus ancillary things.

Primary results summary was suggested, but it's in an optional context area for product ancillary. Would have to write a schematron rule to make sure people would find that it's metadata. Would need additional constraints and restrictions. Easier to make a revised product update than to push it into another bucket. Opposed to the product ancillary solution.

Question: Would it be possible to add file area metadata to product ancillary?

Answer: Possible. Won't be obvious to an end user, but we could make the necessary constraints.

~ Interesting idea. Treat product ancillary like product context. No classes like that yet in product ancillary - maybe.

~ The SCR proposes a file area metadata. This is suggesting we put it in product ancillary.

~ We haven't allowed options in file area. Could look into it.

~ It was just a thought.

Question: Would we want restrictions in tagged digital object? Have a table? Could we restrict the content? Maybe we would need a new class or some restrictions.

Answer: Yes, if a list of tagged digital objects is possible than we could use it, but might need to add class like in product context to describe what this is.

~ Someone is not following.

~ Someone wants to know if we are seriously considering creating a nomenclature nightmare. Labeling a product as metadata seems like a bad idea. The problem is that we are talking about a data object and calling it metadata. It's not helping the argument.

~ Disagreement. Metadata is data about data. We capture it on labels, but there is no real restriction that says we have to capture it there. Nomenclature was the last thing on my mind.

~ This topic could go on forever.

So far, we've seen three issues (if you set aside the metadata versus data argument):

- 1 - field names need some clarification.
- 2 - how this would be used?
- 3 - a generic ancillary product - but agrees that it's not good enough to just constrain this.

Question: Other issues?

Answer: No.

~ Someone raised the issue of if we needed another product type.

~ Too ambiguous. Not seeing something sufficiently well defined that it merits a new product.

Question: Other comments and concerns?

Answer: An important concern that we've discussed already is that this will be in the registries at the nodes. Sounds like there's a solution, but concerned about how you use it to update information in

labels. Worried that metadata in labels will be different from what's returned in search.

~ That's not a problem now. At Rings, the Cassini labels have predict

values in them, but we have enhanced metadata. People are happy to get

and use it. Not worried the label will differ. Rings routinely

generates supplementary metadata for outer planets missions.

Discipline nodes will have to decide what has precedence for search. Better than not making new metadata available.

Question: Is it clear how this is going to be used?

Answers: It will be provided to users and for improved search. Sean

says he can make it work. The concern is about local node search.

~ Don't want the approach taken to not have a clear road to

implementation for the nodes.

~ In PDS3, SBN frequently had cases where better metadata became

available. Since it was PDS3 and easy to do, they just made a table

and called it a new product. Notified users about it. Was thinking

about making tables like this for PDS4. Maybe for New Horizons. Would

still label it as a product and submit a CCB for reference type of

improved geometry. Would put it in SBN search. No worries about slots,

x-path or anything. Never considered another way of doing this, just thought this would be how SBN would do it.

~ Not sure. When you say the update refers back to the original

product, a product metadata supplemental could reference several products.

~ SBN saw it as a large table with product LIDVID in first column. A

simple table with product identifiers.

~ That's what's being proposed - with a specific product type with constraints built in.

~ SBN would consider an update to geometry observational date and

would call it observational data.

~ No constraint then to have LIDVID - and product update says it's

from an observing system.

~ We have a list of data that's been processed.

~ Splitting hairs.

Wanted this to distinguish what scientists consider as data. There's a

clear distinction between data and metadata.

~ That seems like node differences.

We want a proposal that people will vote on next week. Product metadata supplemental is a replacement for product update. The name is counter intuitive. The question is if there is something else that uses tables that could do the job. Product Ancillary would need a lot of constraints. Still think a new product is the right answer. The concerns nodes have about field names to use in this in their search are valid.

~ Thought the concern was about user getting older values in a product and being confused.

~ Product metadata supplemental would be associated with search results so user would know about product metadata supplemental.

~ But it doesn't sound like Sean is going to do this. Unclear what his plan is. He doesn't track individual basic products. Need to have Sean clarify.

~ Sean has talked about more comprehensive search for nodes. Not sure how the SCR can say how nodes will deliver product metadata supplemental.

~ Someone thinks OPUS is an issue. Not sure it works system wide.

~ Not sure system wide if Sean's tools are getting down to basic products.

Question: Say Sean is not doing it - then what?

Answer: Nodes would have to build their own search services.

~ That's my point. Put the requirements in the SCR. There's no need to continue discussing what Sean will do.

ATMOS is using Sean's registry.

~ Someone tried searching and didn't get down to any basic products.

The solution is to develop a query model to point to supplemental metadata.

~ Beyond Rings, there is a need for this.

~ Yes, but a show stopper is the unenforceable requirements, like field name having to be associated with an LDD - is a big red flag.

- ~ Let's talk about that off-line. Not convinced it's unenforceable.
- ~ Validate tool only does schematic validation. Can't do this with validate tool.
- ~ Not sure why. No random columns or attributes - all have to be defined in a DD.

Question: Could it be done with a schematron rule?

Answer: Don't think so, but maybe.

- ~ Someone isn't sure that's how they would do it.

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This has been a really long discussion. We will gather again next week.

There will be discussion on CCB-177 next week. It would help if people could look at it in jira.

- ~ Tiger team wants to know if this should be in common or in LDDs.
- ~ There are two issues to consider. Team will send out an email on source products and processing history. The examples in jira are trying to address the issues.

Question: What have we decided for CCB-192?

Answer: Team will try to draft something and email it to people to look at.

Another Question: How desperate are we to conclude this in the next few weeks? Not sure we're ready or will be done in time.

Answer: Rings really needs it in this build because of the HST project. The tiger team is Lyle, Ed, Jordan, Sean and Mitch. Been a long time since they've met. The last thing they did as a team was to decide that product update needed a different name. A while ago.

- ~ This is a pretty complicated SCR. Not sure we want to deal with it every week.
- There's a danger of folks tuning out.

Thanks to Ed for moderating the CCB-192 discussion.

Meeting in one week.

DDWG Notes 2017-08-03

title: DDWG Notes 2017-08-03



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date: 2017-08-03

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# August 3, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S.

McLaughlin, J. Padams, A. Raugh, B. Semenov and R. Simpson

Observers: M. Banks, M. Liukis and J. Stone

## DDWG Agenda

(Included in email sent August 3, 2017, from M. Gordon: RE: DDWG

telecon Agenda Thursday 8/3)

Updated agenda

brief discussion and vote:

CCB-192 – Product Metadata Supplemental \*\*(Discussed and voted to send

to the

CCB)\*\*

CCB-174 – Composite Structure brief discussion and vote.

\*\*(Discussed and voted to send to the CCB)\*\*

discussion:

CCB-177 – Source products and processing history

\*\*(Discussed)\*\*

# DDWG Telecon

Beyond today - there will be no DDWG meetings the next two weeks. We

will begin meeting every other week again, and make adjustments to the schedule as necessary.

Question: Any Questions?

Answer: (Silence)

## CCB-192 - Add Product Metadata Supplemental See <https://pds-jira.jpl.nasa.gov/browse/CCB-192>

The first draft of the agenda for this meeting was sent on Tuesday, August 1, from M. Gordon and had an attachment for this discussion (see [ccb-192-clarification.txt](#)). There was some email feedback from a few people.

Question: Does anyone else have any feedback on the [ccb-192-clarification.txt](#) attachment?

Answer: (Silence)

The basic idea is that we started with product update, which handles metadata, but isn't functional. It doesn't have a necessary file area.

It needs that. Made updates to that and added a class and deprecated

an attribute and added a required description to the citation area. We changed the name from product update because of terminology issues.

Proposed the name product metadata supplemental, but people still have their preconceptions about product update. Would like to add product metadata supplemental and deprecate product update.

Question: Are there any questions? Are we ready to vote?

Answer: (Silence)

**\*\*The Vote to endorse CCB-192**

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

Rings - Yes

RS - No

SBN - No

A lien will be added to make sure the supplemental information is attached to the SCR.

**\*\*(Action- Item- Mitch)\*\***

## CCB-174 - Add the Composite Structure class

<https://pds-jira.jpl.nasa.gov/browse/CCB-174>

There has been a lot of discussion over the past week and tiger team meetings. The discussion continues. The tiger team decided that we probably want to limit it to parts explosion model. Name it, describe, name components - no other relationships for now.

There's a document attached to the SCR. One person has commented so far. Look at the end of the document to understand the constraint the team wants to add. The idea is that the tiger team decided to put out a basic composite structure and then there will be a follow on SCR for the next release, to try to control abuse. The first one is very limited. Next one in the next few months. Looked at MAVEN CDF and tried to determine the relationships and future use of composite structure.

Question: The document?

Answer: It starts with "Composite structure" it's the first term.

Another Question: Has the body of the SCR been edited?

Answer: Yes. Not much to change to the IM prototype. There's a lien to make a few of the attributes required.

Another Question: The TA?

Answer: A new capability. Most work is in the document to address the abuse concern.

At this point we're limiting it very severely.

Someone is concerned. It still looks like it changes the structure.

~ Will exist in file area, but not an envelop. No nesting. Links local IDs.

~ Good.

Question: What if it's split across files?

Answer: Okay.

~ Because it's in file area, not in file. Got it.

Question: Tiger team put refinements in the document - are they in the SCR?

Answer: The primary purpose of the document is for the document writers of the SR and DPH so they have what they need.

~ The team wants words they can paste into the documents.

~ Willing to iterate with the document writers.

~ The team likes to have something to start from.

The SCR only says changes to the IM so far, except in number 3.

~ This has been a creeping requirement of what needs to go in SCRs.

~ But you could take out the third requested change.

Not sure it's up to the document writers to tell people what to do with a new class.

Question: Under requested changes, we'll make a new class. Are there restrictions on things that need to be in the SR chapter 9?

Answer: Yes.

~ An entry in the DPH is also required. We don't want the document writing team to have to interpret. Cut and paste is the answer. Tiger team leader will iterate with them to get it right. Not a good word-smith.

~ Good. Would also like a few concise examples.

~ Tiger team has examples - will trim them down.

Question: Any other questions?

Answer is Another Question: So, the team lead will work with the document writing team?

Answer: First draft is document in SCR. Will work with them to polish it.

If we are going to vote today, I'll vote no. Don't think we're ready.

~ A vote was requested for today. Tiger team believes the information is out there.

**\*\*The Vote to endorse CCB-174**

SBN - No\*\* (Comment: Not enough time with this) \*\*RS - No\*\* (Comment:

Agrees with SBN) \*\*Rings - Yes NAIF - Abstain PPI - Yes IPDA - No GEO

- Yes EN - Yes IMG Yes ATMOS - Yes\*\*

That's 6 yes, 3 no and 1 abstain. It passes.

Question: So it goes to the CCB as endorsed by the DDWG?

Answer: Yes, and they get the vote count by node.

There are two liens - the change in cardinality and to work with the document writers.

~ A document writer understands the issues, but not the solution.

~ **\*\*Action Item - Steve, Dick and Ron\*\*** will work on this.

~ The classes and attributes don't seem consistent.

~ We will fix that and help the document writing team.

**## CCB-177 - Missing ability to specify source products and processing history See**

<https://pds-jira.jpl.nasa.gov/browse/CCB-177>

Based on the conversations and general consensus the decision was to update external reference for non-PDS4 products. Internal reference is a piece of cake. Referencing non-

PDS4 products is not so easy. Proposes that for non-PDS4 products we update the external reference, particularly external LID. It would be

for PDS3, PDS2 or PDS1 and would include mission, dataset ID and product ID.

We might need more to guarantee uniqueness. It probably won't be something software can use. It's for data users to help them track down the data. You can see external LID, external reference type and curating institution name.

~ Maybe this shouldn't be called a LID to avoid confusion. Would have thought a new class for PDS legacy data with explicit path information.

~ External reference extended has a URL attribute that can be appended.

~ Would call it PDS legacy reference. External reference is more for things like literature.

~ The team discussed that. Not opposed, but tried to stay in already defined classes.

~ Someone thinks we should consider this suggestion. It could avoid a lot of confusion.

~ Concern over re-using classes for the sake of re-using them. Feels like we're putting two distinct things in the same class.

~ Tiger team lead agrees. They were trying to avoid an uproar. Will re-work it.

Question: Is there a parent class for reference?

Answer: No.

This will be updated **\*\*(Action Item - Jordan)\*\***

Question: GEO needs this yesterday, right?

Answer: Yes, but it's not an emergency. Need it for a source that is not PDS.

~ This wouldn't solve it anyway.

~ It gets you closer. In external reference could describe PDS or something else.

~ GEO needs this for a PDART. Not sure of the time frame. Could use a work around if necessary. We shouldn't rush this into the build.

~ Agreed.

Jordan will email everyone the processing history DD, which is external to the common DD. **\*\*(Action Item)\*\***

Question: Any comments?

Answer: (Silence)

---

Question: Does anyone have anything else?

Answer and Another Question: Yes. For Joe and Mitch, did Tom Stein contact you today?

Answer: No.

~ He was interested in CCB-185. He sees an inconsistency between the requested changes and the TA. He was confused. He will contact you for clarification.

~ There was a typo in the original SCR. The TA was done against the original SCR.

That's probably the source of the problem.

**\*\* Action Items\*\*** - Steve will fix the TA and Joe will email Tom.

A question on CCB-177 - low hanging fruit. Internal reference for source product, reference type. Thought we had that.

~ We have data to raw.

Question: What's the difference?

Answer: There are several levels of derogations, derived products, source, etc.

~ Might make search more difficult.

~ Rings has received data where the columns had to be re-organized.

Kept the original as source data.

Question: So what do we prefer? The original proposal was to add a data to source reference type.

Answer: This can go in 1.10. No need to do SR updates on the fly.

~ Yes, there's more to think about.

~ Yes, we can punt. It's useful now.

Question: Does anyone want a copy of the spectral DD? Or have comments on it?

Answer: Two nodes need more time to review it.

~ Would like to post it soon, but it is still up for review. Hopes the major work is done.

Question: Is it limited to optical wavelengths?

Answer: Yes.

~ Maybe RS should look because they have spectra in RS, but this might be different.

~ Look at the wiki page to decide if it's worth looking further.

~ All DD's can do what they want, so reviews are very important - to avoid fiascos.

Thanks everyone.



DDWG Notes 2017-08-24

title: DDWG Notes 2017-08-24

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# August 24, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, D. Heather, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, J. Padams, A. Raugh, B. Semenov and R. Simpson

Observers: M. Banks, M. Liukis and J. Stone

## DDWG Agenda

(Included in email sent August 22, 2017, from M. Gordon: DDWG telecon Agenda Thursday 8/24)

Heads-up - CCB-174 Composite Structure Class generated lots of CCB electronic discussion. We will not discuss it this week, but the tiger team members need to be aware that you may be reactivated after the MC F2F.

1) We currently have three SCRs "In Work":

CCB-153 Dick Additional Description of Packed Data Fields in SR.

CCB-156 Anne LDD Inconsistencies

CCB-177 Jordan Source Product Identification **\*\*(All three briefly discussed)\*\***

Jordan please let us know if 177 is ready for discussion and vote.

**\*\*(Not ready)\*\***

I'd like brief updates on each (1-2 minutes each). For the first two, I need updated spreadsheets. Unless CCB-177 is ready for DDWG discussion & vote, I'll need an updated spreadsheet for it as well.

2) We have three SCRs for which tiger teams have been identified, but spreadsheets have not been submitted. Quick status reports during the telecon please.

CCB-188 Jordan Allow GML

CCB-189 Steve Query model for science bundles

CCB-190 Joe Add 'space' as field delimiter **\*\*(All three briefly discussed)\*\***

3) We have three new SCRs all of which have been judged by EN to have merit. Please review them before the telecon. We need to assign priorities, and possibly identify tiger teams for them – they are competing with the items in number 4 below. With six or seven active tiger teams, I'm inclined to hold us to only two or maybe three more.

CCB-194 Add Target ID.types (Boundary, Region)

CCB-195 Improve International Operability

CCB-196 Restrict Non-printing Use

**\*\*(All three briefly discussed)\*\***

4) Also in the queue awaiting the assignment of tiger teams we have (with priority in parentheses):

CCB-167 Combining Default and Declared pds Namespace (urgent)

CCB-164 Require Display Settings for Images (normal)

CCB-138 Context Objects vs. Observing System Component (low) **\*\* (All three briefly discussed) \*\***

5) Just FYI (not part of the planned discussion this week), we have an additional five SCRs on hold –

CCB-131 Special Constants Attributes

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

CCB-170 IEEE 754 NaN and Inf vs. PDS4 Special Constants

CCB-186 ASCII String and UTF8 String whitespace

CCB-187 Delimited tables, numeric fields and empty values **\*\* (Not Discussed in any detail) \*\***

# DDWG Telecon

## Section 1 - SCRs In Work

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

This is to improve packed data documentation. Work was paused for six weeks. The team is now carrying on without Lev, who no longer works at SBN. The spreadsheet and proposal document will be updated. Team hopes to have something for the DDWG in two or four weeks.

## CCB-156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al.  
See <https://pds-jira.jpl.nasa.gov/browse/CCB-156>

Team lead can start working on this soon. Main bump is collating results team gathered. Some impacts need to be checked against code to see how much it will be impacted.  
Documentation will need to be written.

Spreadsheet is ready.

## CCB-177 - Missing ability to specify source products and processing history See <https://pds-jira.jpl.nasa.gov/browse/CCB-177>

This is not ready for discussion or a vote yet. Punted to 1.10. Team needs to re-do milestones.

## Section 2 - SCRs with Tiger Teams, no milestones yet

## CCB-188 - Update IM to allow GML as acceptable Product Observational data format See <https://pds-jira.jpl.nasa.gov/browse/CCB-188>

Team lead is going on vacation. Will have milestones in a few weeks.  
~ We want this for 1.10.  
~ Team needs to work with USGS to make sure this makes sense.

## CCB-189 - Implement Query Model for PDS4 Mission Science Data Bundles See <https://pds-jira.jpl.nasa.gov/browse/CCB-189>

The tiger team includes an unidentified IPDA representative. Ed would also like to be on the team to make sure the changes needed for InSight are implemented.

The milestones need to be rethought.

## CCB-190 - Add 'Space' delimiter to field delimiter permissible values See <https://pds-jira.jpl.nasa.gov/browse/CCB-190>

Spreadsheet will be provided in the next two weeks.

## Section 3 - SCRs judged to have merit - need priorities, teams, etc.

## CCB-194 - Add Boundary and Region to list of allowed values for Target Identification/type See <https://pds-jira.jpl.nasa.gov/browse/CCB-194>

New SCR from Todd. Sounds pretty straightforward. Needs a tiger team.

There is no enumerated list for names. Boundary and region go in type. Might be nice to have naming conventions.

Question: What's the priority for this? Any missions requiring it?

Answer: Needed for PPI migration effort. Need it set and in place to use soon.

~ Urgent.

~ We already have a list of urgent stuff.

This would require a normal (or low) level of effort.

~ No other target type has been forced to define names. Seems unfair to ask PPI to define unenforceable target types.

~ Someone thought the names were already defined in SPASE.

~ Unsure.

~ Think they are, not sure if there's a formal formation rule.

This is too much detail for this discussion. We will let the tiger team work this out. There is no team yet.

This is probably low hanging fruit.

## CCB-195 - Update Information Model to Improve International Interoperability See <https://pds-jira.jpl.nasa.gov/browse/CCB-195>

The standards are PDS centric.

~ This has to do with URN identifiers. Inconsistent. There are places we can make improvements. There is disagreement on if this is a bug fix or an enhancement.

~ EN was only asked to determine if it had merit.

~ Tiger team will decide if it's a bug fix or an enhancement. Looks like a low level of effort.

Question: Can't the DDWG just say this is a bug fix?

Answer: It's not a bug fix. We need to think about this. It's not trivial. There will be code changes. We could lose validation by not having explicit prefixes. Wonders at what point others should make their own IM.

Question: Thinks this is urgent priority. Any objections?

Answer: (Silence)

Another Question: Level of effort?

Answer: (Silence)

~ Will mark it normal.

~ This will become more complicated.

## CCB-196 - Restrict Use of Non-printing Control Characters in Field Character See <https://pds-jira.jpl.nasa.gov/browse/CCB-196>

This is a follow on to CCB-181 which prohibited use of CR and LF in field delimited.

This is a big deal. We shouldn't allow any non-printing characters in field character. If we pass this we should go back to field delimited and apply the same restraints.

We will assign priority normal and level of effort too.

## Section 4 - SCRs in the queue

## CCB-167 - Remove xmlns:pds recommendation from DPH See <https://pds-jira.jpl.nasa.gov/browse/CCB-167>

There are various sides to this one.

Someone looked at the SR and DPH and couldn't find this anywhere other than in samples. The original intent of the SCR has to change. Removing this from SR and DPH is already done.

Another issue was if we wanted PDS identified as the default namespace in labels.

~ Default always has to be specified. The problem here is that two namespaces point to the same thing. Bad practice.

This has been in the queue a long time as urgent. Needs to be resolved.

~ There was a misunderstanding about where we needed to define namespace for schematron to work.

We can make the priority normal. The DPH changes are not extensive.

~ No changes. It sounds like this is a recommendation for a best practice.

~ We could edit the example files that have this.

~ Wouldn't mind an internal PDS best practices document.

~ We don't have an easy way to find the list of standard abbreviations - want that.

~ The namespace registry lists valid namespaces and IDs. There is a list.

~ We want to be able to find the list.

This SCR is controversial. Not a slam dunk.

Normal priority and level of effort.

Question: Why is this controversial?

Answer: Tiger team may move level of effort to high.

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

This one is not trivial.

~ A show stopper is if there are 100 images in the same product we now have to repeat the display class 100 times.

~ That's what composite structure was trying to solve.

~ Same issue. Not entirely sure we should make major changes in referencing before 2.0.

~ We're not going here today. Wonders if this is not a complete SCR. Maybe we need to decide if we need a multi-valued internal reference.

No tiger team yet.

~ Yes there is. Been working on this.

~ Not sure the problem is well stated, what the priority is or what the level of effort is.

~ This was being worked before DDWG2 started.

~ We will treat it like there's no team 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>

This has always been low priority with inconsistency that is annoying. Not sure how hard this will be to fix. Low priority. Not sure how to access level of effort.

~ We've looked at this several times. It's a question of philosophy and how we want to do this. Composite structure looks at this. There's a philosophical mismatch. The easy answer is to duplicate. Not sure we want to do that.

~ It depends on how the context products interact with search.

There are two issues. If we duplicate and why we're not navigating to context products for search.

~ The problem becomes instrument type.

---

There are six SCRs in the queue, ready for a team and ready to be worked. We are just starting this build cycle.

Question: Which one should we work?

SBN: Probably 164 - by all the people in San Jose next week.

NAIF: 194

ATMOS: 195

PPI: 194

IMG: 164

GEO: 167

IPDA: 195

RS: 138. Democracy is not necessarily the best system

EN: 194, and 164 should be subsumed (not into 194)

SBN: Can't be entirely subsumed by composite structure.

Looks like we need a tiger team for CCB-194.

Question: Who will lead? Ray Walker?

Answer: Someone from PPI will lead.

Another Question: Other participants?

Answer: Steve.

~ SBN will be a strong sounding board.

**\*\*Action Item - Joe\*\*** - figure out who will lead the tiger team and make a spreadsheet for the SCR.

We're at the start of a build cycle. Hope to have shorter meetings, then more as we get closer to the build.

We will probably push some aspect of CCB-164 forward next.

---

Question: Anything else?

Answer: CCB-131 has Lev as the team leader. We probably need to reassign that.

~ CCB-131 is in a holding area. On hold pending something.

~ Possibly pending CCB-153. We can deal with it later.

Question: For CCBs 186 and 187, has merit been established?

Answer: Not yet. Pending triage.

Another Question: When do we do that?

Answer: Not sure if they will be ready for next time. Want triage done. If not for the next meeting then the one after that.

Question: Anything else?

Answer: (Silence)

DDWG Notes 2017-09-07

## DDWG Telecon

7 September 2017

Original agenda is in black. Notes inserted during the meeting are in red.

### Convened:

Mitch Gordon called the telecon to order at 12:30 EDT.

There are 8 active SCRs (tiger teams have been identified), and 10 more waiting to get started.

### Attendees:

Maria Banks, Cristina de Cesare, Mitch Gordon, Ed Guinness, Lyle Huber, Steve Hughes, Ron Joyner, Tanya Lim, Masha Liukis, Joe Mafi, Stef McLaughlin, Jordan Padams, Anne Raugh, Dick Simpson, and Jesse Stone.

**1. Three active SCRs have open milestones which should have been completed. TT leads, please provide updated spreadsheets. Please give a brief update to the meeting.**

CCB-153 Dick Additional Description of Packed Data Fields in SR.

TT Dick, Ed, Ron, Joe

Dick will update the SCR as posted on JIRA using content he has circulated in the past couple days to the Tiger Team. He will notify the DDWG list when JIRA is ready for inspection. If there is a need for more TT activity, Anne expects to participate, replacing Lev Nagdimunov who has left PDS/SBN.

CCB-156 Anne LDD Inconsistencies

TT Anne, steve, joe

Anne isn't sure what to do next; she has collated inputs, but there doesn't appear to be a 'venue' for discussion. She has assumed that Tiger Teams are the correct forum for resolving SCRs, but this one has a much broader scope. Anne has her own plan for CCB-156, but it seems to be at odds with what the rest of

PDS would like. She thinks the SCR is "the tip of the tip of an iceberg"; there is little point in putting a bandaid on the currently stated problem.

Cross-PDS validation is a real problem when LDDs are managed solely at a local level. To what extent should PDS exercise control over LDD creation and management? Anne said there is a need to develop best practices and configuration control.

Mitch offered 20 minutes at the next DDWG telecon — a discussion to include the larger issues, but starting from the SCR as posted on JIRA. In the meantime Anne will draft an issue-based white paper and send it to the DDWG-2 list. At the next DDWG telecon she will present suggested best practices plus a list of things that can be checked with software.

CCB-189 Steve Query model for science bundles

TT Steve, ron, lyle, todd, ipda, Ed

Steve and his Tiger Team will start looking at the proposed solution over the next two weeks. Mitch wants the spreadsheet to include dates for things already completed as well as future milestones.

**2. The tiger team leads for the other five active SCRs need to provide either initial or updated spreadsheets - preferably before the telecon.**

CCB-174 Steve Composite Structure

TT Steve, ed, jordan, joe, ron, lyle, mitch

CCB sent CCB-174 back to DDWG asking for more examples. Mitch has added himself to the Tiger Team; he needs an updated spreadsheet and wants a telecon before the next DDWG telecon (Steve and Ed to schedule).

CCB-177 Jordan Source Product Identification

TT Jordan, steve, ed, tanya

Jordan will provide a new spreadsheet by the end of the week.

CCB-188 Jordan Allow GML

TT Jordan, lyle, ed, moises, tanya, EN

Moses has agreed to take the lead; but Mitch asked that Jordan work with Moses so that Moses understands the procedures for getting this moving.

CCB-190 Joe Add 'space' as field delimiter

TT Joe, Christina, Jesse

There has been no work on this.

CCB-194 Add Target\_ID.types (Boundary, Region)

TT - PPI, Steve, [who from PPI is the lead?]

There has been no work on this.

**3. The SCRs in the queue are listed below in two groups (those on hold due to dependencies, and the rest) with priority and level of effort of each in square brackets.**

I do not intend to identify tiger teams for any of the SCRs "in the queue" this week.

I do want to set preliminary estimates of "level of effort" for the six that currently have "?" in the lists below.

Please think about it ahead of time. Remember, level of effort translates to how long it will take to reach resolution within the DDWG, not how hard it will be to implement.

Also please look at the priorities. Based on the current combinations of priority and level of effort, the next SCR to be promoted to "active" will be CCB-195. Also note that the current priority of CCB-131 is "normal". If that is correct, since CCB-131 is on hold pending the outcome of CCB-187 should we increase the priority of the latter?

The three SCRs in the queue on hold because they depend on the resolution of some other SCR are:  
[priority, level of effort]

CCB-131 Special\_Constants Attributes (has a TT) [normal,?]

Mitch suggested priority and LoE both be set to "normal". There was discussion, but it centered on how JIRA is being used. Anne suggested priority "low". Dick questioned the dependence of CCB-131 on CCB-187. In the end, nothing was decided.

Mitch asked DDWG participants to recommend priorities and LoE for CCB-131 and the SCRs below; send those in an e-mail to the DDWG-2 list by Monday.

CCB-142 Data\_Quality\_Flags to hold metadata on Quality Flags [low,?]  
CCB-170 IEEE 754 NaN and Inf vs. PDS4 Special\_Constants [low,?]

dependencies

CCB-142 is waiting on the completion of CCB-153 (work load issue).  
CCB-131 & CCB-170 are in a chain: CCB-170 depends on CCB-131  
which depends on CCB-187.

Here are the other SCRs in the queue:

[priority, level of effort]

CCB-138 Context Objects vs. Observing\_System\_Component [low,low]  
CCB-164 Require Display\_Settings for Images [normal,?]  
CCB-167 Combining Default and Declared pds Namespace [normal,normal]  
CCB-186 ASCII\_String and UTF8\_String whitespace [low,?]  
CCB-187 Delimited tables, numeric fields and empty values [low,?]  
CCB-195 Improve International Operability [urgent,normal]  
CCB-196 Restrict Non-printing Use [normal,normal]

**Future Meetings:**



The next telecon will be on 28 September. The following meetings will be October 12 and 26. This means telecons in October will not conflict with DPS.

**Adjournment:**

Mitch adjourned the telecon at 13:04 EDT, thanking all for their participation.

## DDWG Telecon – Notes

12 October 2017 12:30- 13:25 EDT

**Welcome (Gordon):** Meeting convened at 12:30 AM EDT by Mitch Gordon.

**Attendees:** Maria Banks, Cristina De Cesare, Mitch Gordon, Ed Guinness, Lyle Huber, Steve Hughes, Ron Joyner, Debra Kazden, Masha Liukis, Jordan Padams, Anne Raugh, Boris Semenov, and Dick Simpson.

### CCB-189 (Hughes)

Simpson noted that Components should include the Standards Reference and not the Data Providers Handbook. Full paths to required bundle and collection attributes should be specified. Hughes grudgingly agreed to make these changes; he doesn't want to set a precedent that documentation changes must be verbatim, but Simpson countered that vagueness leads to documentation mistakes.

Semenov asked how many archived bundles would have to be changed (to take advantage of the upgraded search functionality). Several questioned whether upgrades are required; the change doesn't take effect until IM v1.10.0.0. Votes to move forward with liens accepted by Hughes:

Yes: Gordon, Guinness, Huber, Hughes, Kazden, Padams, Raugh, Semenov, and Simpson

No: none

Not Present: IPDA

Hughes will make changes, then notify DDWG2. Two working days after that, if there have been no objections, Joyner will notify Stein and Law that the SCR is ready for CCB action.

### CCB-188 (Padams):

Padams has queried Milazzo regarding status, but Moses has not responded. Gordon is concerned that this SCR, which has been judged very important, is not moving.

### CCB-190 and CCB-194 (Kazden):

Mafi left no information with Kazden regarding status of either.

### CCB-156 (Raugh):

Gordon wanted to discuss CCB-156 only at a level which would allow assignment of priority and level-of-effort (and possibly one or more tiger teams). Raugh has identified 11 primary issues. See sheet 3 (Dictionary Issues) of the companion DDReqBPv4a.xlsx for summary discussion and proposed actions. Only issues 1, 2, and 4 were discussed; only 1 and 2 led to action.

**Adjourned:** Gordon adjourned the telecon at 13:25 EDT.

Issue	Summary	Discussion	Action
1. Versioning & Identification	File naming; version correspondence in the larger PDS4 context	Closely related to 2 and 4; all tie to configuration control. File naming and version correspondence have been kicking around for a long time; they have both been cans of worms.	Lump issues 1 and 2 together and assign a tiger team. There may be multiple SCRs resulting. Rough and Gordon may discuss next steps during DPS next week.
2. Provenance	(1) Modification history;(2) IM version; (3) LDDTool version	Closely related to 1 and 4; all tie to configuration control. (1) Nothing like modification history is available through LDD_Ingest. Hughes said this might not be difficult to add, and an SCR may not be needed since it is ops. Rough said it is in the pds namespace, so an SCR would be required; one solution for moving forward would be to remove these classes/attributes from the pds namespace, then there would be no confusion. (2) General agreement that the IM version should be documented for traceability. But perhaps this is larger: should schema version and LDDTool version also be documented?	See above. (1) Add modification history to LDD_Ingest, then figure out how to get it into the label. No SCR required for now. (2) General agreement to document IM version. Tiger team will decide what to add, where, and how.
3. Transparency	Modification history; responsible parties; issue, change, and development tracking; notification; problem reporting		
4. Dependencies	IM version; references to other namespaces; existential dependencies of elements on other namespace elements.	Closely related to 1 and 2; all tie to configuration control.	Too early to decide course of action.
5. Naming	Formal file name requirements; patch version identification; "project" vs. "mission" nomenclature (extends to labels and documentation).		
6. Permissible Value Meanings	Requirements; <i>reference_type</i> and <i>local_reference_type</i> definitions; end-user access to defined meanings.		

7. Review PDS review of discipline dictionaries; review requirements for project dictionaries (note: no formal statement currently exists?); human-readability support; testing and validation of Schematron rules for discipline dictionaries;
8. Configuration Control Testing requirements; issue tracking; problem reporting; development requests for new dictionaries; stewardship guidelines.
9. Requirements and Best Practices Stewardship guidelines; documentation of standards and practices; requirement for LDDTool production
10. Development Standards and practices; stewardship guidelines; tracking system use; review services; Xpath programming
11. Training Specialized training; example sets; guidelines; Xpath programming

DDWG Notes 2017-10-26

# October 26, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, S. Hughes, J. Padams, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson

Observers: M. Banks, C. De Cesare, M. Liukis, S. Slavney and J. Stone

## DDWG Agenda

(Included in email sent October 25, 2017, from M. Gordon: DDWG telecon - 10/25/2017 Agenda)

1) Items on the calendar are closer than they appear. With Thanksgiving and Christmas in the mix, we only have about 7 work weeks left to get SCRs to the CCB in order to make the next build. Upcoming telecons:

Nov 9 – yes

Nov 16 – yes

Nov 23 – No, Thanksgiving

Nov 30 – No, MC F2F

Dec 7 – yes

Dec 14 – no, AGU

Dec 21 – yes?

Dec 28 – no, Christmas week

Jan 4 – yes

Every Thursday in January. Feb 1st will be the last DDWG telecon that will affect the next build!

\*\*(Discussed)\*\*

2) CCB-189 Query model for science bundles – Steve. We passed this with liens; Steve resolved the liens, and the SCR was sent to the CCB for resolution. It's back to us, and there are two issues. After it was released, Dick expressed concern that, as written, there is some potentially significant residual ambiguity. The second issue was raised by Steve regarding the discussion about liens.

Dick's notes: "Hughes grudgingly agreed to make these changes; he doesn't want to set a precedent that documentation changes must be verbatim, but Simpson countered that vagueness leads to documentation mistakes."

Steve's comment: "Yes, and in the future, and for SCRs that require verbatim document changes, I propose that a document team member be temporarily assigned to the SCR to document the necessary changes.

Working as a single team would be much more efficient."

I elected to ask Tom Stein to pull the SCR from CCB consideration. I'd rather be certain we've done the best we can with this now, so we don't have to revisit it later. Following a bit more electronic discussion, Susie volunteered to be the

document team member who would be temporarily assigned to SCRs to document required changes. CCB-189 will be the first test case.

Here are Dick's specific concerns:

There is ambiguity when we have required attribute values for classes that appear more than once.

According to the SCR, Product Bundle must have Context Area, Context Area must have Investigation Area, and Investigation Area must have type = Mission. But there may be several Investigation Areas. How many must be "Mission"?

I suspect one is sufficient, but that's not clear from the proposed new wording for the Standards Reference.

Primary Result Summary may also appear more than once. And the same questions apply to Product Collection.

Perhaps the wording should be more like "There must be at least one Product Bundle/Context Area/Investigation Area/type with the value 'Mission'".

We'll have a brief discussion of this, and the mechanics of involving a document member in tiger team deliberations.  
\*\*(Discussed)\*\*

3) SCRs for which I'd like to get a brief update, and updated spreadsheets:

CCB-174 Composite Structure Class – Steve.

CCB-177 Source Product Identification – Jordan.  
\*\*(Briefly Discussed)\*\*

4) SCRs for which I still need milestone spreadsheets.

CCB-188 Allow GML – Moses

CCB-190 Add 'space' as field delimiter – Joe

CCB-194 Add Target ID.types (Boundary, Region) – PPI  
\*\*(Briefly Discussed)\*\*

5) Discuss if we have time

CCB-156 Local Dictionary Issues – Anne. This week we'll continue the walk through the third sheet, "Dictionary Issues", in the attached spreadsheet.

For each topic, we'll (quickly) decide if it is an issue / desirable change, and what, if anything, needs to be done to fix it – not the details, just whether it means a change to the IM, LDDTool, etc.  
\*\*(Not Discussed)\*\*

# DDWG Telecon

Future DDWG meetings - we will have two in a row, November 9 and 16, then Thanksgiving and MC no meetings, then the first week in December, December 7. December 21 is questionable - we will discuss that as it gets closer. Then January 4 and all of the Thursdays in January. There's not a lot of time before the next build. We're not making a lot of progress. Need to finish up some SCRs - need to get the low hanging fruit.

Question: Any Questions?

Answer: (Silence)

## CCB-189 - Implement Query Model for PDS4 Mission Science Data Bundles See <https://pds-jira.jpl.nasa.gov/browse/CCB-189>

This SCR passed with liens two weeks ago, but it was pointed out that there is still a lot of ambiguity, so it has been pulled back from the CCB. Tom Stein was okay with that. The author was reluctant to produce verbatim document entries. The upshot was that the author recommended that a member of the document writing team participate on tiger teams. Susie volunteered to take a shot.

~ We already have two thirds of the document writing team attending the meetings.

~ If there's a document writing team member on a tiger team than they shouldn't need Susie.

~ One document writing team member tried to check things out for the document writers when he's on a tiger team, but doesn't always have time to go over everything before deadlines. Not sure it's necessary to add Susie to the mix.

~ Susie volunteered to help with the writing and document revisions before it gets to the DDWG. This may help us get things through in a more timely manner. Now, for CCB-189, we don't want to fix it now. It was brought up so tiger team leads would know we want to get as close to verbatim cut and paste changes in documents for SCRs as we can. If a team needs changes to documentation they need to contact a member of the document writing team.

Susie will work with the author of CCB-189 to go through it and get a cleaned up version ready for the telecon in two weeks.

There is still an issue with CCB-189 - it's a SR question, not simply a document issue. We need to decide what we want.

~ It seems only one instance has to be type mission to be a bundle.

~ That might be okay.

Question: Any objections?

Answer and Another Question: IPDA has a bundle without a mission - the PSA bundle. Do other nodes have bundles without a mission?

Another Question: So the PSA bundle has no mission?

Answer: Correct, it covers multiple missions.

~ We wouldn't need the query model for that bundle.

~ The PSA bundle wouldn't be returned by the query model, it would be required by the associations.

Another Question: It's not required by the standard?

Answer: No.

~ The query model says for a bundle to be in the search results it has to have a type equals mission, it has to have that attribute. It gives DPs leeway to decide if they want that. The follow on is that we could have other query models - we could do them on other attributes that might be searched on.

So, there's more work to do.

~ We need to decide what classes are needed. The issue is documentation - we need to be careful.

The required changes need to be verbatim as to what's wanted. Author's grudge is that they shouldn't have to do the wordsmithing for the SR or other documents. Doesn't want to be responsible for the text.

~ We have the document writing team. Hopefully, having them help with SCRs will not take more time. This is a positive step forward.

**\*\* (Action Item - Steve and Susie) \*\*** - Steve will fix the required changes and work with Susie on the documentation changes.

The new wording should be included in the SR. We need to be careful not to push this through. Recommendation that people involved in changes to documents talk to the document writing team. The problem is when things have to be done in a hurry.

**\*\*Action Item - Mitch\*\*** will add a step to SCR milestones to have the document writing team go over the SCR.

There can't be a quick turnaround.

~ Someone agrees. Has seen this coming for years. The issue is that we don't want the document writing team to review it. Want them to write it. Want the document writing team to be a part of the process of writing the changes to the documents.

~ That's why there's a tiger team.

~ It's not efficient to not have a member of the document writing team on tiger teams.

~ The tiger team has to explain what they want.

~ They'll be willing to explain, not to do the writing.

~ Enough of this. Review means review, edit and revise. The document writing team will do the wordsmithing.

~ It should be done before it gets to the DDWG for a vote.

One document writing team member is working on CCB-153 (SR Needs Additional Description of Packed Data Fields) which has 15 pages of document changes - be warned. It's to explain how to use bit strings. All the text and figures are fixed. Will send email to the DDWG when jira is updated.

We're ready to move on.

## CCB-174 - Add the Composite Structure class See <https://pds-jira.jpl.nasa.gov/browse/CCB-174>

The tiger team met - but the meeting competed against a good talk at DPS, so not all team members attended the meeting.

~ Tiger team is making progress. Working on examples. Has three ready so far. Want one from atmospheric perspective and a PPI perspective.

## CCB-177 - Missing ability to specify source products and processing history See <https://pds-jira.jpl.nasa.gov/browse/CCB-177>

Tiger team made some progress. Got some comments. Will get back to work in the next week. Team lead is busy with a peer review now.

## CCB-188 - Update IM to allow GML as acceptable Product Observational data format See <https://pds-jira.jpl.nasa.gov/browse/CCB-188>

Looks like a new team lead is needed. Jordan will handle it.

~ Spreadsheet needs to include a milestone for the document writing team fairly early.

GML is bigger than PDS. This won't be an easy SCR.

~ We really need it get it off the ground.

~ The point is that there will probably need to be back and forth with the MC.

~ They did approve it. We just need to make it work.

## CCB-190 - Add 'Space' delimiter to field delimiter permissible values See <https://pds-jira.jpl.nasa.gov/browse/CCB-190>

Team lead owes the spreadsheet and needs to get together with the team. There are some real concerns about impacts on other CSV files. Will have the spreadsheet turned in by Tuesday.

## CCB-194 - Add Boundary and Region to list of allowed values for Target Identification/type See <https://pds-jira.jpl.nasa.gov/browse/CCB-194>

No decision has been made at PPI yet about who the team lead will be. It will be discussed at the next staff meeting.



We need to get CCB-190 and 194 moving.

## CCB-156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al.  
See <https://pds-jira.jpl.nasa.gov/browse/CCB-156>

We will not discuss LDD issues today because Anne is not here.

Question: Any questions or comments?

Answer: Someone thought the tiger team was meeting before this DDWG meeting.

~ It will happen when Anne is back.

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Question: Anything else?

Answer: (Silence)

DDWG Notes 2017-11-09

title: DDWG Notes 2017-11-09

layout: default

date: 2017-11-09

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# November 09, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, J. Padams, R. Joyner, D. Kazden, S. McLaughlin, A. Rough, and R. Simpson

Observers: M. Banks, C. De Cesare and S. Martinez

## DDWG Agenda

(Included in email sent November 7, from M. Gordon, Re: DDWG agenda telecon - 11/09/17)

1) Updates from Tiger Teams (need new or updated milestone spreadsheets)

·CCB-174 – TT lead: Steve

·CCB-189 – TT lead: Steve

·CCB-194 – TT lead: PPI

Heads up, Steve is out of the country, so may not be calling in. If that is the case I will be calling on other TT members from 174 and 189 to provided updates.

\*\*(Brief Updates on 174 and 189)\*\*

2) CCB-153 – TT lead: Dick. We will discuss this one in detail next week. JIRA is fully up to date, so review it early and express your concerns in JIRA in order to facilitate next week's discussion.

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

3) TT updates, comments or questions from the group.

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

# DDWG Telecon

Hopefully, this telecon will be very brief. Steve and Joe will not be attending. Expecting Santa to call in for IPDA.

## CCB-174 - Add the Composite Structure class See <https://pds-jira.jpl.nasa.gov/browse/CCB-174>

Updated spreadsheet was received - with new milestones. TT working on sample products - updates of existing plus a few more.

## CCB-189 - Implement Query Model for PDS4 Mission Science Data Bundles See <https://pds-jira.jpl.nasa.gov/browse/CCB-189>

This is the one that we already voted on and was then found to have some ambiguity. The initial proposed changes from the document writer were lost in the ether, but have been found. Hope to have revised wording in jira in time for the telecon next week.

## CCB-194 - Add Boundary and Region to list of allowed values for Target Identification/type

See <https://pds-jira.jpl.nasa.gov/browse/CCB-194>

This one has reared its head and needs to be discussed next week.

Anne - Not to cause trouble, but notes that in primary results summary we have a concept of regions. Wonder if we need something to accompany it.

~ That seems reasonable. The tiger team so far is someone at PPI and Steve. Please write Joe and Steve an email so they have that to consider. **\*\*(Action Item - Anne)\*\***

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

Waiting for our deliberations until next week. All changes are in jira. If people have questions or concerns - please make an entry in jira.

Dick - The changes to the SR are pretty minimal. Tried to make everything consistent and unambiguous.

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Question: Does anyone have anything else they want to discuss? Any questions?

Answer: (Silence)

Our next telecon is next week on Thursday, November 16. We will discuss and hopefully vote on CCB-153. We will want to know who is on the team from PPI for CCB-194. We will also want CCB-189 on the agenda as a discussion topic. CCB-174 will not be on the agenda next week.

DDWG Notes 2017-11-16

title: DDWG Notes 2017-11-16

layout: default

date: 2017-11-16

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# November 16, 2017

Notes by Debra Kazden

Known Attendees:

M. Gordon, E. Guinness, L. Huber, J. Padams, R. Joyner, D. Kazden, J. Mafi, S.

McLaughlin, B. Semenov, A. Raugh and R. Simpson

Observers: M. Banks, M. Liukis and J. Stone

## DDWG Agenda

(Included in email sent November 14, from M. Gordon, RE: DDWG agenda

telecon -

11/16/17 with WebEx info)

This week's agenda requires advanced preparation by everyone. I

anticipate votes with little or no discussion on CCB's 153,189, and possibly 201.

CCB-153 – TT lead: Dick.

I plan to call for a vote. I've highlighted in the past two telecons

that the entry in JIRA is fully up to date, and that everyone should

review the proposed solution and make comments. There are no new

comments, so I assume that everyone is satisfied with the proposed solution.

\*\*(Discussed and voted to move forward)\*\*

CCB-189 – TT lead: Steve

We previously approved this, but pulled it from CCB deliberation because some of the proposed documentation need to be word-smithed.

That has been done and reviewed by the document editing team.

Please review the proposed SR changes before this week's telecon.

Unless someone identifies another issue with the documentation I'm ready to release this one to the CCB.

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

There are two new SCRs, please review both:

CCB-200 Amend the Target Class Context Product

CCB-201 Add enumerated values to reference type

I've requested an EN triage of both to be completed before the telecon. We will consider forming a tiger team for CCB-200. CCB-201 is pretty much at the bug fix level. I expect to call for a vote on it this week assuming everyone takes the time to review it in advance of the telecon.

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

Time permitting, I'll ask for updates on:

CCB-194 – TT lead: Joe spreadsheet?

CCB-156 – TT lead: Anne update on Wednesday telecon

CCB-174 – TT lead: Steve status of this week's milestones

CCB-177 – TT lead: Jordan status of this week's milestone

**\*\*(Brief Updates)\*\***

# DDWG Telecon

Going out of order while we wait for everyone to arrive.

## CCB-201 - Add enumerated values to reference type for investigations at facilities using telescopes See <https://pds-jira.jpl.nasa.gov/browse/CCB-201>

This is one of two new SCRs. EN says this has merit. It might be a bug fix. Would like us to vote if there are no objections.

Question: Are there any objections?

Another Question: Is there a way to include this as part of a point build instead of waiting for 1.10?

Answer: We need someone from EN to answer that.

~ This probably won't affect the system, so it's probably possible.

~ There are other changes that would also make a point build make sense.

**\*\*Action Item - Lyle\*\*** email Steve and explain that you want a point build and why.

ATMOS has a PDART submission ready to go. It's a waste of time to wait for March.

~ Other nodes also often find necessary values missing.

~ We may need more point builds when we get going more on the migration.

Question: Will there be a TA before we vote?

Answer: Oh. We only asked EN if it had merit. Didn't ask for that.

Maybe we should set it aside - get the TA done and then have an e-vote this week.

~ Someone would like a chance to look at what's already there and to get the TA.

Question: Any other comments?

Answer: (Silence)

## CCB-153 - <https://pds-jira.jpl.nasa.gov/browse/CCB-201>

See <https://pds-jira.jpl.nasa.gov/browse/CCB-153>

We voted on the substance of this at the end of September. Everyone voted yes, except SBN, with the understanding that some documentation changes were needed. The changes have been made and available on jira for a month.

Question: Any objections?

Answer: We did not vote on it. Not on the whole thing. Thought it was a straw-man proposal.

~ That's not what the notes say, but fine. We can vote now if there aren't any objections.

\*\*The Vote to approve CCB-153

ATMOS -Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes (not here - voted Yes in absentia) NAIF - Yes PPI - Yes

Rings - Yes RS - Yes SBN - Yes\*\*

There are a few cut and paste things to change in the model.

~ Ready to go to Emily and then on to Tom Stein for status, vote, etc.

## CCB-189 Implement Query Model for PDS4 Mission Science Data Bundles

See

<https://pds-jira.jpl.nasa.gov/browse/CCB-189>

We won't be voting on this today. There was a mad flurry of documentation changes last night. We will kick this out for an e-vote when the documents are stable. This had been approved - needed SR clean-up.

Question: Any questions or comments?

Answer: (Silence)

## CCB-200 - Amend the Target Class Context Product See <https://pds-jira.jpl.nasa.gov/browse/CCB-200>

This one is new, urgent and has merit.

~ Not everyone has seen this one yet.

This one doesn't say required. It allows an opportunity to put in SBN type targets.

There are circumstances when the target is well known and there's no chance it will be confused with other targets - simple rules for those - other issues can't be fixed with context products.

~ Not a requirement.

~ The primary problem is that only one node cares about unique names for targets.

Only a problem for one node. They have name collisions all the time.

Would like a rule that there has to be a second identifier for everything. The principal problem is with target and context.

~ Someone is not understanding this at all.

Question: Who filed this?

Answer: Steve H (He's not on this call) ~ Part of this can be mitigated by sorting results of target name by target type. Knowing what the problem is that provoked this SCR would be very useful.

~ The context product has target, discipline area, product data object - one is target - has the association has target - if you click that, name and type are optional. Type is multi-valued. But we have a target identification class now - might be better to have that here.

~ Problem is not knowing how search handles target name. There are different options, but they are not interchangeable. We need to know how the search handles target name. It could be a quality of life issue for end-users.



Looking at the proposed changes... (note-taker missed something here)

~ That only works for stars.

~ The problem statement says DPs need context products.

~ It's not clear how to use the current target context product in a way that benefits users for search. Worried about creating thousands of SBN context products. They will corrupt the database in many cases.

~ That's not the intention here. Think this is a mission or DAP product out of ESA, who went to a single comet and need a context product.

~ Still would like to understand where this SCR came from. Don't want to see people writing ad-hock target context products.

~ We will not select a tiger team for this this week.

Question: Will Sean be at the F2F?

Answer: Maria will check.

~ Maybe we can corner him on what the search service needs.

~ It would be useful to sit with Sean and figure this out. We need a few specific answers.

Someone would like to hear more about this. Sounds like we are putting important information in the context products, but they shouldn't include information you can't get somewhere else.

~ It really comes down to stable names.

~ Context products are not required in bundles.

~ They are used internally to make connections.

~ Someone suggested that they be part of name resolution service for future users - no one was interested.

~ We need more information on who is requesting this, why and how it will be used.

~ Sean will be at the F2F.

~ We'll trap him for an hour.

## CCB-194 - Add Boundary and Region to list of allowed values for Target Identification/type See

<https://pds-jira.jpl.nasa.gov/browse/CCB-194>

Joe will be the PPI tiger team member. Will have the spreadsheet ready before Thanksgiving. All milestones will be in January.

Anne did not email Joe and Steve about regions following the last telecon - put her comments in the jira system.

~ There is no comment there.

~ Anne will double check.

~ Essence of the comment was worry that there might be a collision of terminology - regions, boundaries, etc.

**\*\*Action Item - Anne\*\*** will comment in jira.

**## CCB-156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al See**

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

The tiger team had a telecon yesterday on DD issues, including provenance. Planning to develop two prototypes to discuss at the F2F on how to handle the versioning issue. Will make a presentation to the tech group.

We will continue to discuss some of the pieces of 156.

Question: Any questions?

Answer: (Silence)

**## CCB-174 - Add the Composite Structure class See <https://pds-jira.jpl.nasa.gov/browse/CCB-174>**

Tiger team leader sent an updated spreadsheet of milestones. On track.

Question: Did the team work on examples?

Answer: Almost ready - still in progress. Hopes to have them done by Thanksgiving.

~ Hope you realize that's next Thursday.

## CCB-177 - Missing ability to specify source products and processing history See

<https://pds-jira.jpl.nasa.gov/browse/CCB-177>

Milestones are due this week.

~ Team leader has been out sick all week - will try to get it done.

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Question: Anything else?

Answer: Back to CCB-153 and the vote - we don't have a TA for CCB-153.

Another Question: Did we not get a TA with the vote?

Answer: The vote was to move forward.

~ Let's get a TA and vote again.

~ The next DDWG telecon is in December. We can get the TA done and do an e-vote, assuming there are no hand grenades. An e-vote shouldn't be a big deal.

Another Question: Is everyone satisfied with that?

Answer: Yes.

**\*\*Action Item - Lyle\*\*** will email Steve on the possibility of a point build and cc Mitch.

Question: Will the point build cover all SCRs up to now?

Answer: No, but the trivial or urgent ones. Wanna keep moving forward.

EN will decide what to include in a point build.

No meeting next week or the week after. Next telecon is December 7.

Weekly in December up to Christmas break. Will be inconvenient for AGU people. Will try to take that under consideration with December topics.

Question: Questions?

Answer: (Silence)

The document writing team will stay on the line now.

DDWG Notes 2017-12-07

title: DDWG Notes 2017-12-07

layout: default

date: 2017-12-07

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# December 07, 2017

Notes by Debra Kazden

Known Attendees:

E. Guinness, L. Huber, S. Hughes, J. Padams, R. Joyner, D. Kazden, J. Mafi, B.

Semenov, A. Raugh and R. Simpson

Observers: M. Banks and C. De Cesare

## DDWG Agenda

(Included in email sent December 6, from M. Gordon, DDWG agenda telecon - 12/5/17) \*Date of telecon is actually 12/7/17 - as pointed out in follow up email from R. Joyner\*

1) The upcoming schedule:

Telecon next week, 12/14

Telecon on 12/21 (maybe)

Telecons every Thursday in January

February 1st is the DDWG drop dead date for possible inclusion in the next build.

\*\*(Discussed)\*\*

2) Discuss and possible vote. Please review the SCR and example files before the telecon.

CCB-174 Composite Structure, TT Lead Steve.

We passed this once – consensus, not unanimously, and sent it to the CCB. They sent it back with a few questions and a request for more examples. The SCR and existing examples have been updated, and at least one new example is provided. One of the changes revises where in File Area Observational the Composite Structure occurs which prohibits using Composite Structure as the sole object in the File Area.

**\*\* (Discussed - no vote today) \*\***

3) We currently have tiger teams for the following SCRs ("open" SCRs).

Here are the tiger teams and expected completion dates (where completion is defined as the likely date for a DDWG vote) of the open SCRs. Everyone please check that this information is correct.

CCB-156 LDD Inconsistencies	Anne, Steve, Joe	*
CCB-174 Composite Structure Class	Steve, Ed, Jordan, Joe, Ron, Lyle, Mitch	
	12/14/18	
CCB-177 Source Product Identification	Jordan, Steve, Ed, Tanya	
	12/14/18	
CCB-188 Allow GML	Jordan, Lyle, Ed, Tanya, Ron	probably after next build
CCB-190 Add 'space' as field delimiter	Joe, Christina, Jesse, Ron, Dick	
	2/1/18	
CCB-194 Add Target ID types	Joe, Steve	2/1/18

I'd like to complete CCB-174 and CCB-177 and send them to the CCB before the Christmas break.

I don't plan to start new tiger teams until after Christmas.

However, I need some help with CCB-156. In going through Anne's spreadsheet, we identified a few, relatively minor issues that can be addressed by submitting separate SCRs. However, the current tiger team is either on 'use it or loose it" leave until the end of the year, or already heavily committed on the remaining open SCRs. So I'm looking for one or two volunteers to work with me in the next two weeks to write a few SCRs.

Some of the bigger issues identified in the CCB-156 spreadsheet will be discussed at the tech F2F in February.

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

4) Please let us know if you are receiving these notifications and do not need to do so, and, as always, let us know if someone else should be added to the list of addressees.

**\*\*(Brief Mention)\*\***

5) Issues from the group?

**\*\*(There was one - updates to Geometry LDD necessary for Europa Clipper)\*\***

# DDWG Telecon

Mitch was not on the call today. Ed ran the meeting.

Not voting on anything today. No representatives from Rings or IPDA.

## CCB-174 - Add the Composite Structure class See <https://pds-jira.jpl.nasa.gov/browse/CCB-174>

See email from M. Gordon, RE: DDWG agenda telecon - 12/7/17 CCB-174, December 6, 2017, attachment: Cassini-VIMS-Reflectivity-20171206.xml for this discussion

Question: Regarding the Cassini VIMS attachment - I see one of the axes is wavelength, so why isn't this labelled as spectrum?

Answer: Good question. We need Mitch to answer that.

~ It's VIMS spectrum, which someone knows has issues.

~ It refers to the Spectral DD.

~ Thought it should be illustrated. The axis isn't uniformly sampled.

~ The purpose of this is to see a composite product and to see how two things are related to each other.

## ## Things That Aren't on the Agenda

Some quick updates:

CCB-189 - Implement Query Model for PDS4 Mission Science Data Bundles - was passed by the DDWG and the CCB. Queued for implementation.

CCB-153 - SR Needs Additional Description of Packed Data Fields - was passed by the DDWG and is moving to the CCB now.

CCB-201 - Add enumerated values to reference type for investigations at facilities using telescopes - was passed by the DDWG and is moving on to the CCB.

Basically, we closed out a few and will hopefully close out a few more before the next build.

We are going to check on status and at the end of the telecon we will look for volunteers to help with DD items.

Schedule for the rest of the month is that next week (December 14) we will meet and maybe December 21. If people know they won't make those please let Mitch know.

~ Next week is AGU. Joe, Anne and Debra will be there. Ed was going to go, but now isn't.

Question: Will there be a room at AGU for people to call in to the DDWG?

Answer: Unknown.

Debra will not be attending the December 14 or 21 meetings. Has already let Mitch know.

Question: Is anyone else unable to attend on December 21?

Answer: (Silence)

~ We'll see how it goes.

## CCB-174 (again - see links above)

This was passed in a reduced role. The CCB asked us to look at it again. It's been sent back to the tiger team. We are not ready to vote on it yet.

It came back to the tiger team to review and to propose more of what was originally proposed years ago. It includes five examples. The Cassini VIMS example took it further than before. Brought about a deeper discussion and additional proposals. Open the schema with the SCR.

~ There are a lot of them.

~ Open PDS 1700.

~ Someone sees the xsd.

~ Yes. Open the schema and scroll to line 1340 (file area observational) to see the primary observation, then line 1347 (file area). The suggestion is about line 1361 (composite structure). Up until about two weeks ago we would have composite structure as a choice in the choice block. The proposal is that it could be first and



only - with nothing else - that it be moved up in the schema as an optional choice before the choice block of structures.

Question: So if you are going to define a composite structure it has to be in one file and only have PDS objects?

Answer: There are no current constraints for that.

~ There are.

~ No, file area points to byte stream structures - which say where they are.

Another Question: So are they referenced by local IDs?

Answer: Yes, but composite structure not specified in a file.

~ So composite structure is in a single file. If that is the actual constraint we need a schematron rule. There's an example of this in the Spectral DD.

~ This isn't new.

~ The tiger team needs to address this in more detail.

~ Someone thought this was settled.

~ Nothing is ever settled.

Someone would have expected a schematron in the sample file set. We would also need this to be in the documentation. It needs to say that composite structure has to be in a single physical file.

~ Not everyone realized this had been discussed in the past. It seems reasonable not to cross file boundaries.

Hopefully, we will vote on this in time for the spring build.

## ## Status of Open SCRs

We will defer talking about CCB-156 to the end.

CCB-177 - Missing ability to specify source products and processing history ~ Looks like no milestones are due before the 14th.

~ Team leader stepped out but left message that he hopes to have something for the tiger team to look at by the end of the week.

CCB-188 - Update IM to allow GML as acceptable Product Observational data format ~ This is still a ways off.

~ Waiting to hear from USGS on this. Next build, at least.

~ It's critical to have USGS input.

CCB-190 - Add 'Space' delimiter to field delimiter permissible values and

CCB-194 - Add Boundary and Region to list of allowed values for Target Identification/type ~ No progress. No milestones due yet. Milestone dates are all in January.

Question: Do the teams anticipate having these ready for the spring build?

Answer: Hope so.

~ CCB-194 seems like it should be simple.

~ (Laughter)

## CCB-156 - Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al See

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

The tiger team has been discussing the spreadsheet of rules for LDDs.

Would like to get the issues that are low hanging fruit out of the way and develop SCRs for them.

There's an issue of tracing provenance. We need someone to go through the list and find things like tweaks to schema. We need to design something to match versions of DDs to labels throughout the archive.

Wonder if it's appropriate to file an SCR for that design work - to track it long term.

~ Maybe something could be drafted and passed around the group before it goes in jira.

~ Okay. (\*\*Action Item - Anne\*\*)

There were three things that Mitch said he would like volunteers to work on. From Anne's spreadsheet, V4 - required - VpV4 - from the

dictionary tab - item 8 - attributes in common exposed for locals - not sure if this requires an SCR.

~ They are exposed. The question is if a writer of an LDD can define their own attributes with the same name - constrained or unconstrained.

~ That's not what Mitch said.

~ They are exposed.

Question: Does anyone want to work on this one?

Answer: This one is a good example of what we need to go through to create SCRs for.

We're not ready for an SCR on this one. There's still confusion.

~ We could write an SCR to get people talking.

~ Not sure we want to clutter up the system.

~ Thought the system was to track effort.

~ Not exactly.

~ Not sure we're ready for this one yet.

~ There's a misunderstanding. We need to figure that out first.

The next item on dictionary issues page is item 2 - provenance of LDDs. The issue is adding modification history and a few other things.

Question: Does anyone want to work on this?

Answer: Ed is willing to help.

Another Question: Anyone interested in helping?

Another Question: Are tiger team members not supposed to?

Answer: Idea is that a small group would discuss the issue and then write the SCR.

~ Looking for volunteers who aren't already on the team.

~ Steve is on the team, but will look at this (\*\*Action Item - Steve\*\*). He assumed he would help with them all.

~ The spreadsheet is very comprehensive. It would help to have tiger team members in the groups.

The last one is on V4, tab 2, item 3 - change tab to ingest LDD. There are justifications for this.

~ Ed and Steve will help.

So, for the second and third ones Ed, Steve and Mitch will work on them.

Question: On the first page, above number 8, there are things that were already discussed by the DDWG. Are there any SCRs yet? There was general agreement about them.

Answer: No SCRs yet.

---

That's it for today.

Question: Are there any other issues people would like to bring up?

Answer and Another Question: Yes. There was a presentation about Europa Clipper at the last MC. The Geometry LDD will need things that are not included yet. Does the Geometry LDD steward have an action item to fix it?

Answer: Ed is the steward, Mitch is the original author and Jordan has provided input.

No action item yet.

~ We need an action item.

**\*\*Action Item - Ed\*\*** - please call Lisa Gaddis to discuss planetographic longitude and latitude.

DDWG Notes 2017-12-21

Hi all,

There will be a telecon this week. No telecon next week. Then telecons every Thursday in January, beginning on January 4th.

The focus this week will be CCB-174

1. CCB-174 Composite Structure, TT Lead Steve.

- ?Discuss and possible vote.
- ?I've attached an updated example file.

Background: We passed this once – consensus, not unanimously, and sent it to the CCB. They sent it back with a few questions and a request for more examples. The SCR and existing examples have been updated, and at least one new example is provided. One of the changes revises where in <File\_Area\_Observational> the Composite Structure occurs. This prohibits using Composite Structure as the sole object in the File Area.

In the discussion two weeks ago, the issue of one vs. multiple files surfaced. Here is the answer.

<File\_Area\_Observational> remains the best option for <Composite\_Structure>.

The components of a composite structure must be contained in a single 'data' file, or in the label file describing that file.

In the attached example, <Composite\_Structure> begins on line 102.

The components of the composite structure are:

- ?a 2D Array providing reflectance values for specific values of ring radius and wavelength,
- ?three 2D 'backplane' arrays,
- ?two classes from the display dictionary, one describing how to calculate the axis values along the radius axis, and one describing how to display each array,
- ?an additional Array which gives the axis values along the wavelength axis (the values do not increment uniformly).

JIRA should shortly have an updated prototype schema, Schematron, and specification including additional enumerated values for <id\_reference\_type>, and an initial attempt at a Schematron rule to preclude having the components of a composite structure spread over more than one file.

2. Issues from the group?