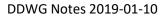
Meeting Minutes from the DDWG-2 telecons:



DDWG Notes 2019-01-17

DDWG Notes 2019-01-24

DDWG Notes 2019-01-31

DDWG Notes 2019-02-14

DDWG Notes 2019-02-28

DDWG Notes 2019-03-14

DDWG Notes 2019-04-11

DDWG Notes 2019-04-25

DDWG Notes 2019-05-09

DDWG Notes 2019-05-23

DDWG Notes 2019-06-06

DDWG Notes 2019-06-27

DDWG Notes 2019-07-11

DDWG Notes 2019-07-18

DDWG Notes 2019-08-01

DDWG Notes 2019-08-08

DDWG Notes 2019-08-22

DDWG Notes 2019-09-05

DDWG Notes 2019-09-26

DDWG Notes 2019-11-14

DDWG Notes 2019-12-11

DDWG Notes 2019-12-19

DDWG Notes 2019-09-05

title: DDWG Notes 2019-09-05

layout: default date: 2019-09-05

September 05, 2019 Notes by Debra Kazden

- **Version 2 September 6, 2019
- ~ These Version 2 notes include one correction.

In the CCB-208 discussion:

Original Notes say:

"even if we never call t GeoTIFF"

Changed to: "even if we never call it GeoTIFF"

Known Attendees: C. DeCesare, M.Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson Known Observers: D. Hollibaugh Baker, M. Bentley (alternate for T. Lim) and P. Lawton (alternate for A. Raugh)

DDWG Agenda

(Included in email sent September 3, from E. Guinness, DDWG agenda for Sept 5, 2019)

- I. Continue discussing change requests that were talked about during the last telecon.
- 1) CCB-209 Correct tagged objects. Steve, can you estimate when you have time to work on this?
- 2) CCB-138 Mismatch between context object types and values of type in Observing System Component class. Lyle and Lynn to discuss developing a plan to address this.
- 3) CCB-186 ASCII String and UTF8 String whitespace handling. Anne will look at this when she has time (not for six weeks).
- 4) CCB-204 Define and enforce best practices for LDD. Ed to review SCR to see what part of this is still relevant.
- 5) CCB-205 Additional constraints/best practices for LDD. See above.
- 6) CCB-208 Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id. Ed initiated an email discussion on this request. See JIRA for comments.
- 7) CCB-222 Add citation text to Citation Information. Joe to assess status.
- 8) CCB-255 Namespace version dependencies are not documented in IM. Steve and Anne to discuss top two possible solutions.
- **(Discussed)**
- II. Review status.
- 1) CCB-202 Instrument type in Context Products We will track implementation status of the LDD.
- **(Discussed)**
- III. New requests for reference

- 1) CCB-269 Unexpected Error when Classes are missing from for Product SPICE Kernel. Context Area
- 2) CCB-268 Add optional attribute to class DD Permissible Value

(Discussed)

IV. Other topics?

(None)

VI. Set next telecon date - Sept 19 (Does this conflict with DPS) or Sept 26. I will be unavailable Oct 10.

(September 19)

DDWG Telecon

We will discuss our future schedule and possible conflicts at the end of the telecon today.

Looked for action items in the meeting notes for discussions today. We will not be voting on anything today. We will run through the agenda.

I. Continue discussing change requests that were talked about during the last telecon

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

The kick off of the work on this has been done. Results were sent for review. There won't be any more work until after September. The issues will be resolved. The first step resolved 80% of the issues.

- ~ There will be more progress in October.
- ~ Team will report as they work through the issues.

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 is a very old one. Lyle volunteered to discuss this with Lynn and maybe devise a plan.

~ ATMOS discussed it in terms of the context document. Think it should be reduced down to four types, really two - instrument and host. Host captures all the options: spacecraft, laboratories, etc. Could also include two more classes - telescope and literature search. That's how ATMOS thinks observing system component type should be classified.

Question: Can you put it in jira for everyone to review?

Answer: Will add a document in comments, but not the reporter. **(Action Item - Lyle)** Another question: Does anyone have any comments now?

Answered with a question: So, only host and instrument, in cases where there are balloon, gondola and telescope - can the elements be stacked?

Answer: Yes. Host can be stacked. Instrument is the piece at the end.

CCB-186 - ASCII String and UTF8 String whitespace handling See https://pds-jira.jpl.nasa.gov/browse/CCB-186

Waiting until mid-October for work on this one.

CCB-204 - Define and enforce best practices for discipline and project dictionaries, and CCB-205 - Additional constraints/best practices for discipline and project dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-204 and https://pds-jira.jpl.nasa.gov/browse/CCB-205

Action from last time was for these to be reviewed. Hasn't been time yet. Will be after September 16 **(Action Item - Ed)**

CCB-208 - Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id See https://pds-jira.jpl.nasa.gov/browse/CCB-208

There has been some movement on this one. Trent has comments in jira. He said that with certain constraints - not compressed and contiguous - it's okay. Strong proponent of allowing GeoTIFF as a product observational. There's a link to the standard. Mark also made a comment in jira. Others have been involved through email. There was a suggestion that we withdraw this SCR and write a new one.

- ~ Reporter was hoping to get out of the loop on this. Reported for Emily. Would like Trent to be the lead on this.
- ~ Seems like Emily didn't really understand the problem.
- ~ Yes, and it's an evolving issue. She wanted to use for supplemental.

Mark's comment in jira is relevant. He wrote "If I understand correctly, uncompressed GeoTIFF could already be archived as an observational product, since its basic array structure matches PDS4 requirements. But the above would also allow for compressed GeoTIFF images to be archived as non-observational products and correctly described - is that correct?" ~ It seems like there's a bigger issue of what we need for headers and we should be able to archive it if it meets the

~ Someone agrees. If we want it for an observational product, and it's not compressed and is contiguous, it could just be a 2D array image. We need to document that. Maybe we need a new SCR.

MC would have to sign off on new data formats.

requirements - even if we never call it GeoTIFF.

- ~ This isn't a new format. MC signed off on CDF and FITS.
- ~ As long as it meets the requirements, who cares.
- ~ Agreed, but we should follow our policies.

Someone thought the issue was the label.

- ~ Not label, header. We have encoding standard ID it only allows TIFF for now. Could do this in array 2D with a header, but we'll need documentation to say that GeoTIFF can be used in restricted situations for product observational. This SCR is for supplemental.
- ~ Sounds like something for the CCB. To allow GeoTIFF with constraints it has to be documented.
- ~ Yes, in the SR. Something was done for FITS. Not sure if that's in the SR or the SBN wiki.

Question for Christina: Could you work with Trent on allowing GeoTIFF as an observational product? Answer: Sure.

~ We need a new SCR for GeoTIFF as an observational product and to document the restrictions. We should also work on CCB-208 for non-observational data. We could add GeoTIFF for those since it's a special case if TIFF.

We need someone new to be the champion of CCB-208.

~ For now, Ed will review the SCR and ask Christina if he needs help. **(Action Item - Ed)**

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

Joe was going to look at this one.

~ Yes. PPI was doing some work with Todd's DOI request tool and looked at the standards/elements in the requests. Planning to go through them and make sure we have all the elements PDS is using. We aren't using datacite. The standard we are using is based on an early version of datacite. Will make sure all required parameters are part of the PDS4 metadata. Hope to work on this in the next few weeks. **(Action Item - Joe)**

We should be using datacite.

- ~ It's a lot richer. Many things for archiving and labelling data sets, but the organization we are registering our DOIs through uses the older standard. One of the standards has publication year and another has publication date. A lot of stuff in the new version would be very useful.
- ~ The service is OC. They are working towards the datacite standard. We should be ready for that.

People look forward to hearing what Joe comes up with.

CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

Anne and Steve were going to continue their discussions of this one.

- ~ No work since the Planetary Data Workshop. Nothing is finalized yet.
- ~ Won't be working on it at DPS because Steve won't be there.

II. Review status

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

The stewards team met last week. Making progress. Working on LDD. Began populating types. Lyle worked on it, then Dick, now Joe, and it will go to Sebastian next.

- ~ Stewards are meeting again next Wednesday.
- ~ After everyone does a round of populating the types they hope to go over it and then be done with it all by the end of October.

CCB-268 - Add optional attribute to class DD Permissible Value See https://pds-jira.jpl.nasa.gov/browse/CCB-268

This is a new SCR.

There are a number of instrument types that are close to each other - they have fussy differences. We don't want the top level of search to get false negatives. Want to be able to use the correct type and to associate types to each other for search. We need a way to tie the types together - called it alternate value for now. We need this in the system for the the Instrument Type stewards team to conclude their work by the end of October. This would go in the ingest file. Search tool would need to connect the alternate values together and provide an option to de-select.

Someone would like to see an example of this in Jira. **(Action Item - Lyle)**

Question: Any comments?

Answer: Someone questions if this should be restricted to instrument type, as written it would go to every enumerated list.

~ The team should look at terminological entry and see if it solves their problem. It handles alternates.

Action Item - Lyle will look at terminological entry and discuss it with **Steve** to get clarity.

CCB-269 - Unexpected Error when Classes are missing from Product SPICE Kernel.Context Area See https://pds-jira.jpl.nasa.gov/browse/CCB-269

Reporter believes this is a bug fix. Was trying to put a leap seconds file in Cassini migrations, but left out target and observing system - which were supposed to be optional, but got errors that they are required.

~ NAIF rejects that this is a bug fix and wants every file to be associated.

The label describes what's in the file, not what's being used.

~ NAIF wants these associations for every single spice kernel label.

There was an email exchange on this. **Action Item -Boris** will send the emails to **Steve** to put in jira. Steve will also check optional versus required to see if this is working as it should.

- ~ Someone wants to know why the error message is coming up.
- ~ It's based on schematron.

We will discuss this again.

VI. Future Meetings

In the short term we have some possible conflicts - like DPS. Anne and Mitch will be there. The 19th would be two weeks. Ed is gone next week and won't be able to do any DDWG work. Suggestion is that we next meet on September 26.

~ Anne won't be available.

Question: Does anyone object to meeting on September 26?

Answer: It works for people.

The other issue is that Mars 2020 is heating up and will be having dawg meetings every month on Thursdays and could overlap with our meetings. Propose that we go to the second and fourth Thursdays of the month for our meetings.

Question: Any comments? Answer: No objections.

~ Ed is not available the second Thursday in October. We will discuss that at our next meeting. We will also have an issue with Thanksgiving. The other option is to change the time of our meeting. Ed will send out email about this to start a discussion. **(Action Item - Ed)**

Our next meeting will be September 26. Please check the notes for action items.

Back to CCB-269

Someone looked and there is a schematron rule that things be required for spice kernels. This isn't an unexpected error. We need discussions to resolve the issue.

~ See line 1438 in the schematron.

Question: Do we have similar issues for other things that are optional in model and required in schematron? In this case it comes down to opinions on what's applicable for spice kernels.

Answer: Schematron is part of the model.

~ There really is no error.

DDWG Notes 2019-01-10

title: DDWG Notes 2019-01-10

layout: default date: 2019-01-10

January 10, 2019 Notes by Debra Kazden

- **Version 2 January 15, 2019
- ~ These Version 2 notes include two corrections.

In the CCB-248 discussion:

Original Notes say:

"Someone is unsure why we have a bundle has collection type."

Changed to: "Someone is unsure why we have a bundle has member collection."

In the CCB-242 discussion:

Original Notes say: "Someone agrees and is not understanding the problem."

Changed to: "Someone agrees and is not understanding the problem noted in the JIRA comment with the proposed change."

Known Attendees: C. De Cesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, R. Simoson and R. Samoson.

Simpson and B. Semenov

Observers: M. Cayanan, L. Neakrase, S. Slavney and J. Stone

DDWG Agenda

(Included in email sent January 8, 2019, from E. Guinness, Agenda for DDWG telecon on Jan. 10)

We will focus on the CCB items that were assigned action items from our Dec 20 telecon and hopefully be able to vote on some of the change requests. The action items are listed below:

- 1) CCB-214 Jesse Stone will revise definitions for the new validation format and existing field format attributes to make clear the purpose of each. Let's try to finish this one up and vote at our next telecon.
- **(Discussed Voted to pass it to the CCB)**
- 2) CCB-235 Jesse Stone will draft a formation string for ASCII BibCode.
- **(Discussed)**
- 3) CCB-211 All DDWG members should review the suggestions for dealing with file name collisions when the data file is an XML document. Please add any comments to JIRA.
- **(Discussed)**
- 4) CCB-202 Steve Hughes to review the TA for this change request and update if necessary. (I believe that Steve has completed this).
- **(Discussed Voted to pass it to the CCB)**
- 5) CCB-242-246 Steve Hughes to provide TA for these requested changes related to context products. DDWG members should provide any comments in JIRA. (I believe that Steve did the TA's, but there are some liens on these).
- **(Discussed)**

DDWG Telecon

Tech Session - Jordan is working on an agenda, but he can't talk to NRES because of the government shutdown. Looking at using Cal Tech as a back up if need be. Hopefully, we will have an agenda soon.

There is a new SCR, CCB-248, that we will discuss later. It is from Mark Bentley, who works with BepiColombo. First, we want to focus on what we might be able to vote on - CCBs that have TAs and haven't had any new comments in awhile.

CCB-214 - Optional trailing zeroes in ASCII Real for Table Character See https://pds-jira.jpl.nasa.gov/browse/CCB-214

The SCR has been updated in jira with definitions and text for the SR.

~ The main thing is that hopefully it's more clear. A schematron rule was also added - rule is based on comments. Probably the best way to keep backwards compatibility.

The DPH doesn't have mention of field format. Don't think we need to put anything in there. Won't hold us up. There is a TA. No hold ups.

Question: Are there any objections to voting?

Answer: No objections, but have been studying it and would prefer validation flags instead of a schematron rule. Think that's a better solution. Not comfortable with how this plays out when not ASCII reals.

There are two new comments in jira since this call started, that one to use flags and an answer to it that the team wasn't comfortable with putting the control functions in the metadata. Would need to document that there's a variant somewhere.

~ Just wanted to inform users downstream that strict validation had been carried out. A valid response.

Let's vote and see if it'll pass. Seems like we are polishing the cannonball on this issue.

**The Vote for CCB-214:

ATMOS - Yes

IMG - Yes

EN-Yes

GEO - Yes

IPDA - No

NAIF - Abstain

PPI - Yes

Rings - No

RS - No

SBN - Yes**

So, we have six yes, three no and one abstain. This will pass to the CCB for their final decision. They will let us know if they like it or not.

CCB-235 - Add data type ASCII BibCode for use in data tables and local dictionary attribute definitions. See https://pds-jira.jpl.nasa.gov/browse/CCB-235

Team took the original formation rule - tried to implement it, but had problems. So many codes that didn't fit - had to loosen it. Then tried to visually inspect to see if would work as regular expression. That validated.

~ Think we want to put the regular expression in the requested changes. Then we can have a TA done. Once done, people can do a final review and we can vote.

~ Okay.

^{**}Action Item - Steve** will do a TA of CCB-235.

Question: Any other comments?

Answer: (Silence)

CCB-211 - Add XML as an option for some non-label files See https://pds-jira.jpl.nasa.gov/browse/CCB-211

The issue is how we allow XML files, specifically dealing with name collisions. There were a number of suggestions and comments. The action item for the group was for us to look at it all and comment on preferred solutions. GEO is leaning towards changing the file extension to .pdsx. We Can discuss all this. If we do it there will be significant impact. ~ I think we should use ODL.

Question: We wanted to use XML because there is so much off the shelf to go with it. If we change our file extension, how much trouble will we have? This makes me nervous.

Answer: It was pointed out the if we use .pdsx it could be registered as a mime type. Not an expert.

- ~ People are concerned.
- ~ Someone is leaning towards adding a suffix in the file name.
- ~ Someone agrees. It's probably the least offensive way to go.
- ~ Unsure what the impact to software would be.
- ~ Someone votes for a file name extension of some kind.
- ~Not sure we'll solve this today. People should put comments in jira.

In a comment from December 6 that hasn't been addressed it is pointed out the we essentially are approving XML data formats. Thought the MC needed to answer before we ever deal with this SCR.

Not sure who is on the hook.

- ~ The DDWG reports to the MC.
- ~ This can be brought up at the next MC meeting.
- ~ This isn't the issue. Someone would expect the CCB to raise it to the MC level.
- ~ We're talking about two things that are tied together. Data type and name collision.
- ~ we need to bring the MC into this. We need to know how to handle this, not just what the DDWG recommends. We need the MC to say what we can do.
- ~ We could just call them text files.
- ~ Same issues. We need the MC on this.

Question: Are we just talking about XML for supplemental and ancillary or for product observational? Answer: If this is for product observational we have to talk to the MC.

~ We need to talk to them even if it's for documents. We snuck movies in for documents - didn't get approval.

NSSDCA response is in a comment in jira.

~ Everyone please comment in jira **(Action Item - Everyone)**

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

This one has a TA. Not sure what else we need to do. There have been no new comments.

Question: Are we ready to vote? Answer: The TA was updated. Another Question: Anything else?

Answer: Someone is going to vote no. We're just setting up work for another group.

Question: Are there any objections to having a vote? Final approval is with the CCB.

^{**}Action Item - Ed** will include this in his next MC presentation.

Answer: (Silence)

**The Vote on CCB-202:

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

Rings - Yes

RS - No

SBN - Yes**

Nine to one. This will be passed on to the CCB.

CCB-247 - Undeprecate "Radio Science" as a Value for Instrument.type See https://pds-jira.jpl.nasa.gov/browse/CCB-247

Going back to something we voted on last time. There have been emails about this. We voted to pass it, to undeprecate radio science as an instrument type, but there's confusion that if CCB-202 passes the CCB it goes in there, but if not the solution is to change the enumerated list. Unsure if this should be sent to the CCB yet - since the solution or required changes is TBD.

- ~ It's deprecated, but we want it as an option.
- ~ Not sure if we have to undeprecate it or put it in a LDD. Not sure it should go to the CCB yet.
- ~ The issue is if it should be undeprecated and how we use it depends on CCB-202.
- ~ RS needs it in the CCB-202 list.
- ~ Fine, if there's approval to add it back in.

It's fine to send it to the CCB.

- ~ There's no TA. We might want one for completeness.
- ~ We all thought it was a no brainer bug fix.
- ~ It's very important that it's in the next build.
- ~ RS needs it for migration.

CCB-248 - Bundle Member Entry is missing a reference type for miscellaneous collections See https://pds-jira.jpl.nasa.gov/browse/CCB-248

This is from Mark Bently. He notes that the reference type list for bundle member entry doesn't include the miscellaneous collection. Wants to add that. Asking folks to put comments in jira.

Maybe in parallel a TA can be done.

~ TA will be done.

Action Items - Everyone review CCB-248 and put comments in jira, and **Steve** will do the TA.

Question: Has anyone looked at it yet?

Answer: The point is that it makes it consistent.

~ IPDA encouraged Mark to put this in.

Someone is unsure why we have a bundle has member collection. People were using it because there isn't a bundle has misc collection type. Recommends changing the SCR to add misc and deprecate the generic.

~ This comment needs to be added in jira. **(Action Item - Mitch)**

Action Item - Tanya - Talk to Mark to see if he will edit the SCR.

CCBs-242-246

There is a group of SCRs from ATMOS. They have TAs and have been cleaned up. We'll walk through them. There is an appendix in the DPH that has format rules for context products, so that should be added to the SCRs.

~ **Action Item - ATMOS** - will put that in.

CCB-242 - Add 'Field Campaign' to Investigation Type to accommodate planetary analog field studies See https://pds-jira.jpl.nasa.gov/browse/CCB-242

This is in response to a bunch of incoming projects. Pretty straight forward.

A comment was put in jira.

- ~ This is changing how we use type. Seems like a bad idea.
- ~ These are very specific. ATMOS doesn't see the argument.

(There is some discussion that is missed by note-taker - people disagreeing.)

The definition of observing campaign...

- ~ A bunch of people or institutions collecting data. Individuals, one person, mission...Several other. Seems like we're going off in a different direction.
- ~ The wording for observing campaign is different from field campaigns. Completely different beast.
- ~ Someone agrees and is not understanding the problem noted in the JIRA comment with the proposed change.

It would be nice if we could agree before we go off into the world.

- ~ You are the only one not agreeing.
- ~ I'm the only one talking. Think we could do better by just tuning the attribute values.

Seems like the question is if they are overlapping, and ATMOS says they are not.

Question: The definition says analogue study. What happens if someone has digital?

Answer: Different kind of analog.

- ~ Someone doesn't know what an analog study is.
- ~ Analogous.

Question: Are we likely to encounter other purposes for this besides analog study?

Answer: Would all be analogue study. All analog processes.

Another Question: Is this too narrow? Are we excluding biological processes?

Answer: That could be analog.

~ Our approach has always been to do limited implementation based on what we have. We could add more later.

Would like to see how this affects DPH. Not sure if people want to put more comments in. Seems like there are different ways this is being interpreted. Not sure what we do to move this forward.

~ ATMOS will look at the DPH, but not sure there's a path forward to satisfy both sides. This it's vote or don't vote.

Action Items - ATMOS - will look at the DPH, and **Everyone** will review it in jira.

CCB-243 - Consolidate Context Target Types for Samples See https://pds-jira.jpl.nasa.gov/browse/CCB-243

There's a recent comment in jira on this one.

This is part of the clean up process. Trying for consistency. Currently, we have several examples. Would make sense to make this a single sample case.

Question: Does the comment have to do with the definition of sample?

Answer: Wants a sample to be a small object that is representative. Not include planetary. Example of the green cheese paper for a moon sample. Thinks it should be a broader definition of what a sample is.

~ Would have used laboratory sample.

Another Question: Can we just remove the word planetary? Can the new definition just be put in jira?

Answer: I did. It leaves out planetary.

Question: Will you (ATMOS) consider that?

Answer from ATMOS: Will take a look. **(Action Item)**

Otherwise, this seems ready for a vote. Assumes there's a way to use the deprecated ones.

~ There is a way forward. ATMOS has been discussing it with Richard. Will take the action to work it out with Richard.

(Action Item - ATMOS)

Wonder how it will affect search when some older stuff has been deprecated and newer has a sample.

- ~ Richard reports it won't be a problem.
- ~ Remember, context products are not required.

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types and provide 'multi-host' and 'no-host' options for instruments See https://pds-jira.jpl.nasa.gov/browse/CCB-244

This is one that Richard pointed out. Earth-based is never used. There are other ways of doing it. In instrument host facility can be used. That takes care of it. The problem is that some instruments move from facility to facility (lab or observatory).

Not sure what to do with this. No comments is jira. More examples might be helpful.

- ~ Someone is in favor of more sensible structure, but not sure.
- ~ Someone else looked at this. Currently doing a bunch of observations. Didn't use Earth-based.
- ~ SBN might use Earth-based.
- ~ SBN: We don't use Earth-based.

Action Item - Jesse - ask Anne to look at CCBs 244 and 245 and make comments in jira.

CCB-245- Deprecate 'Airborne' as an independent host type, add airborne platforms to Instrument Host context types See https://pds-jira.jpl.nasa.gov/browse/CCB-245

Only has one comment in jira. Airborne is in the list for observation system component. This will affect the DPH.

- ~ **Action Item ATMOS** will fix that.
- ~ Will probably use instrument host as the type. Need to figure it out with Richard.

We would like to have Anne's input.

~ Do recall a problem - that previously it indicated spacecraft.

CCB-246 - Deprecate 'Sun' as a separate context target See https://pds-jira.jpl.nasa.gov/browse/CCB-246

There is still a lien on the TA.

This is another one for consolidation. Sun is it's own type. Looking at putting it in the star class, for self consistency in the model.

There were comments in jira.

- ~ In favor of this it makes it more consistent. Suggests/requests that we deprecate type sun and add it for a type of star. Trivial. We just need to put in the requested change.
- ~ Someone would like to hear from PPI.
- ~ PPI likes the change. Will have to see if it affects anything we already migrated, but don't think it's an issue.
- ~ Geo is not sure if they have used it.
- ~ We want to correct this before to many products would have to be retrofitted.

Question: Any questions? Hopes note-taker has captured all the actions.

Answer: (Silence)

Question: When will we meet again? We have about a month to get stuff into the next build. Can we get enough done to meet next week?

Answer: ATMOS will have stuff ready. Not available in two weeks.

~ We might need to meet every week.

Next meeting is January 17th.

DDWG Notes 2019-01-17

title: DDWG Notes 2019-01-17

layout: default date: 2019-01-17

January 17, 2019 Notes by Debra Kazden

Known Attendees: C. De Cesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S.

McLaughlin and R. Simpson

Observers: M.S. Bentley (alternate for T. Lim), L. Neakrase, and J. Stone (alternate for A. Raugh)

DDWG Agenda

(Included in email sent January 15, 2019, from E. Guinness, DDWG telecon this Thursday, Jan 17)

We will focus on the CCB items that we are likely to be able to finish in time for the next build.

- 1) CCB-248 (add reference type in Bundle Member Entry for miscellaneous collections) This SCR needs a Requested Changes section, which will be similar to the Proposed Solution but with a value meaning for the new reference type. It also needs a Technical Assessment before we can vote.
- **(Discussed)**
- 2) CCB-246 (Deprecate Sun as a target type) Edits to the Requested Changes have been made. Has the TA lien been satisfied?
- **(Discussed)**
- 3) CCB-245 (Deprecate Airborne as a host type) Edits to the Requested Changes have been made. Does SBN have any comments?
- **(Discussed)**
- 4) CCB-244 (Deprecate earth-based as a host type) Edits to the Requested Changes have been made. Does SBN have any comments?
- **(Discussed)**
- 5) CCB-243 (Change target type for samples) Edits to the Requested Changes have been made. Need to find consensus on the definition of sample.
- **(Discussed)**
- 6) CCB-242 (Add field campaign to investigation type) Edits to the Requested Changes have been made. There is still ongoing discussion of this SCR.
- **(Discussed)**
- 7) CCB-235 (Add data type ASCII BibCode) Requested changes to the Standards Reference and allowed usage have been added. This SCR also needs a Technical Assessment.
- **(Discussed Voted to send this to the CCB)**
- 8) I am tabling work on CCB-211. It probably would be best to try to work this at the Tech Session. Also, we (I) need to inform the MC of the desire to have xml as an acceptable data type.
- **(Brief Discussion)**
- 9) Any other SCRs that the team wants to try to finish for the build deadline?

(Discussed CCBs 203 NS 204)

10) Set next telecon date.

(January 24- in one week)

DDWG Telecon

Anne will probably not be back until after the build. Jesse is her alternate. Mark S. Bentley is the alternate for Tanya. NAIF is not here today.

We are going to try to keep discussions brief and assign action items. There are seven SCRs on the agenda. We will focus on those.

CCB-248 - Bundle Member Entry is missing a reference type for miscellaneous collections See https://pds-jira.jpl.nasa.gov/browse/CCB-248

There is a lien in the TA about filling out the paperwork.

- ~ Reporter will fix the paperwork.
- ~ Reporter can let Ed or Steve know if they have any questions. Requested changes is used to implement the change.

There is text in the TA that can be pasted into the Requested Changes section in jira - and then the lien can be removed.

Question: Anything else on this?

Answer: (Silence)

CCB-246 - Deprecate 'Sun' as a separate context target See https://pds-jira.jpl.nasa.gov/browse/CCB-246

There is still a lien in the TA.

~ A minor issue. Can cut and paste TA text to the requested changes and it will be ready to go.

Question: Comments? Answer: (Silence)

CCB-245 - Deprecate 'Airborne' as an independent host type, add airborne platforms to Instrument Host context types See https://pds-jira.jpl.nasa.gov/browse/CCB-245

Comments were added in jira by Jesse from Anne. Not everyone understands the comments.

- ~ Anne emailed Jesse. She wants to make sure that no data is already using it. Wants that checked.
- ~ Richard had said that BOPPS is using it, but he has a solution to use going forward. Old LIDs are archived under older versions, so it should be okay. ATMOS is working with Richard on solutions for things when LIDs are changing dramatically.

Question: Can you put in jira how this will be done? We don't have a lot of time.

Answer: ATMOS is in communication with Richard. Will be on it.

~ People need to be reassured that even if it's not backwards compatible that it will be okay.

Question: Comments? Answer: (Silence)

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types and provide 'multi-host' and 'no-host' options for instruments See https://pds-jira.jpl.nasa.gov/browse/CCB-244

There are lots of comments from Anne.

~ ATMOS answered. Thinks the comments are mostly unfounded. People can read the comments in jira. Host is important for how LIDs are formed. We need to capture that and have consistent LID formation.

Question: So there are no alternatives for the word host?

Answer: Mounted and unmounted were suggested. Not useful for everything. ATMOS is trying to find a simple, generic case for most situations. Comes down to mission products. They have a host segment that shows what an instrument is attached to. Looked at it with Richard. He wanted the same amount of segments for formation. It works for multi-host.

~ It makes sense. Understands the concerns.

Another Question: Would stand alone work?

Answer/Another Question: Versus no host? It comes from the conversation with Richard. Can further discuss. The biggest thing is to have consistency. Host/no host or another word can be looked at.

- ~ Anne also wants to make sure this is documented so DPs can understand it.
- ~ ATMOS thinks they have it in the places in the DPH that make sense.

Question: Trying to understand what needs to be done. Do we need further discussion?

Answer: We could. A lot of this is in unofficial guide book to context products. Maybe people could review that. Maybe it would clear some of this up.

~ What's critical is what's in the IM. LIDs weren't supposed to be in the IM, but we do need clear formation rules.

If there are no more comments we will move on...

CCB-243 - Consolidate Context Target Types for Samples See https://pds-jira.jpl.nasa.gov/browse/CCB-243

The remaining issue seems to be the definition of sample. Not sure if we need RS and ATMOS to have an off-line discussion.

- ~ ATMOS prefers that the other nodes weigh in.
- ~ RS agrees.

The difference is a short definition of sample from RS or the ATMOS definition. Both are in jira.

~ RS thinks everything should have general definitions.

We will take a poll.

SBN - No opinion.

Rings - Struggling to see the advantage to the ATMOS definition. Can go either way, but doesn't deal with samples.

PPI - Don't deal with samples. No strong feelings.

EN- A scientist issue, but in general prefers most generic for definitions. Leaning towards RS.

IMG - Don't deal with samples either, but prefers the broader definition. Leaning towards the more generic.

GEO - No strong opinion. In some cases a generic definition is useful, but sometimes too broad. We have a lot of definitions that are so terse it's hard to know what they mean. Could go either way.

IPDA - Don't have samples, but prefers being general.

Question to ATMOS: What do you want to do?

Answer: There's not much opinion here except that generic is better. We will edit our definition to be closer to RS. ~ A hybrid.

If the real goal is to help with LID formation - can do it with a pretty general definition of sample.

- ~ The problem is that sample is not a target type now. Only synthetic sample. Trying to get something useful.
- ~ To clarify, this is a taxonomy issue. Attribute names need to be constrained. Sample is fine for the generic, could then break it into it's specific types. Otherwise, you get wrapped around the axial.

Three weeks for the next build.

CCB-242 - Add 'Field Campaign' to Investigation Type to accommodate planetary analog field studies See https://pds-jira.jpl.nasa.gov/browse/CCB-242

The discussions are still going on in jira. Jesse put in comments from Anne. For geology, field campaign has a well defined meaning. It's different from an observing campaign.

~ Anne passed along a definition and wanted to make sure observing campaign is not redefined.

We still have a difference of opinion between ATMOS and RS. We could see what other nodes think.

Question: Is the issue the definition of the parameter itself? Investigation type says it's a definition of the scope of the investigation. Is that the issue? That field campaign doesn't have scope?

Answer: Yes.

- ~ It's better to describe campaigns as campaigns.
- ~ Fine, drop observing.
- ~ No. They are different.

Question: Does this cause a problem? PDS3 had a big problem with types being used in multiple ways. If it doesn't cause a problem, fine. We don't want to create problems by having different scales housed under the same name. Answer: Yeah. More interested in clarity. Mixing campaigns is wrong. Don't see a problem with field campaign.

Question: Anyone else?

Answered with Another Question: What would a survey be? Space Watch is where we have a few facilities that go across the sky every night. How would we archive the pictures?

Answer: Thinks if there's one PI it might be an individual investigation, if there's a group involved that might be different. Depends on the number of people. If in field doing lots of stuff - to a geologist that's a field campaign. Users wouldn't look for it under observing campaign. One PI would be an individual investigator. If there's a team it would be a field campaign.

- ~ Yes. Someone agrees.
- ~ Someone else agrees too. Reminds them of the sample discussion. Consolidate campaigns into one term and then subdivide.
- ~ So, deprecate observing campaign and just have campaign.

Question: There would just be a new campaign type?

Answer: Haven't thought it all the way through.

~ Clearly. (There was more to this comment, but it was fast and note-taker did not catch it)

People need to think about this for a vote for next time **(Action Item - Everyone)**

Hierarchy. Campaign and types of campaigns. In the IM, how to implement it is the issue. We could flatten it to make it easier to use. Model would take care of both sides.

- ~ Difference with samples is a greater number of sub-divisions.
- ~ Implementation is where we get to do what's most efficient. We could have one or many.

We will let people think about it another week. Probably vote next Thursday. It could go either way.

^{**}Action Item - ATMOS** will work on the definition of sample.

CCB-235 - Add data type ASCII BibCode for use in data tables and local dictionary attribute definitions See https://pds-jira.jpl.nasa.gov/browse/CCB-235

Lots of work has been done on this. Gets a special star in the TA.

Question: Comments? Ready to vote?

Answer: TA gave it the R.S. award for completeness. It's ready.

~ There should be a ceremony at the tech session awarding this to Jesse. Go ahead and vote.

**The Vote for CCB-235:

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Not Here

PPI - Yes

Rings - Yes

RS - Yes

SBN - Yes**

Nine to zero. Ed will email Ron to pass it to the CCB. **(Action Items)**

CCB-211 - Add XML as an option for some non-label files See https://pds-jira.jpl.nasa.gov/browse/CCB-211

This is tabled for now until it can be presented to the MC. Maybe we can discuss it at the tech session.

Question: Any objections?

Answer: (Silence)

Any Other SCRs?

Question: Are there any open SCRs that we can do in three weeks? Or that we must?

Answer: There are two SCRs - I think 203 and 204. Lists of changes for the LDD tool. They are being implemented. Think they weren't supposed to be included. Not sure how to resolve this.

Someone believes the SCRs were from Anne. Software issues.

~ They are more software orientated. Thought Anne was going to close them.

Someone's advice is to move them to the software group. Have Ron do magic for that - to close them for us. (**Action Item - Ron** - do magic)

Question: Which ones?

Answer: I think 203 and 204 from Anne.

- ~ Still not sure which they are, last looked in April. Maybe we should deal with them after the build.
- ~ Maybe just handle them administratively.

Someone thinks Anne wanted a new section in jira for LDDs. Maybe that's how this ended up for the CCB.

- ~ That's what someone remembers. Maybe we can be notified of what's implemented. The DDWG doesn't approve software. It's a murky issue.
- ~ The CCB doesn't want to review software. Limbo. Maybe Jordan should be apprised. (**Action Item Steve** talk to Jordan about this)

They are CCB-203 -Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes, and CCB-204 - Define and enforce best practices for discipline and project dictionaries. Define and enforce is why Anne wanted a new track. More than just software. Could discuss this at the tech session. Probably best to wait until after the build.

~ After the release it will be done. Concerned.

Both SCRs ask for more than just updates to software.

- ~ CCB-204 wants constraints and best practices documented. Not sure we've settled on them.
- ~ Should comment in jira.

What can be implemented in LDD tool will be. We can deal with open issues after the build.

Last thing, after the build deadline we will look at all the SCRs that have been around over a year and decide what to work on and what to close out.

Action Item - Everyone should take a look so we can have a conversation in a month or so.

Next Telecon Date

We are making good progress. We will meet next week, January 24.

~ Lyle will be unavailable. Lynn will call in.

title: DDWG Notes 2019-01-24

layout: default date: 2019-01-24

January 24, 2019 Notes by Debra Kazden

Known Attendees: C. De Cesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S.

McLaughlin, B. Semenov and R. Simpson

Observers: L. Neakrase and J. Stone (alternate for A. Raugh)

DDWG Agenda

(Included in email sent January 22, 2019, from E. Guinness, DDWG agenda for telecon on Jan. 24)

We will focus on the CCB items that we are likely to be able to finish in time for the next build.

- 1) CCB-248 (add reference type in Bundle Member Entry for miscellaneous collections) A Requested Changes section has been added. Ready for vote?
- **(Discussed Voted to Pass)**
- 2) CCB-246 (Deprecate Sun as a target type) Has the TA lien been satisfied?
- **(Discussed Voted to Pass)**
- 3) CCB-245 (Deprecate Airborne as a host type) Any more discussion?
- **(Discussed Voted to Pass)**
- 4) CCB-244 (Deprecate earth-based as a host type) Any more discussion?
- **(Discussed)**
- 5) CCB-243 (Change target type for samples) Have we converged on a definition? What is the final answer?
- **(Discussed Voted to Pass)**
- 6) CCB-242 (Add field campaign to investigation type) Have we converged?
- **(Discussed will do an evote)**
- 7) CCB-202 is coming back to the DDWG. Anybody want to lead the effort to address the CCB comments?
- **(Discussed. Led by Lyle)**
- 8) Set next telecon date Jan 31?
- **(Yes)**

DDWG Telecon

First thing we will discuss today is CCB-202, which has been referred back to us by the CCB. Lyle will lead the discussion. We will cover this first because he has to leave the call early.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

Lyle sat in on the CCB discussion and provided clarification. In general, they are willing to approve of the SCR, but they needed some clarity. Steve Joy sent an email to Ed that was then forwarded to the DDWG. He wanted clarity in the sub-

type - especially regarding IPDA. This was discussed with Steve Hughes yesterday and jira has been updated. The CCB also wanted to know who would be the steward for the new LDD. That was also written about - thinks it should be a team that can change as we see fit. There was also concern about inserting instrument type. See see section 3B in jira. Think all of this is in line with what we would agree to, except maybe the team should review things. Would like all of the nodes to look at it.

Question: Any comments?

Answer: At some point we need to ease the concerns of the CCB that when a new enumerated value is proposed that the steward team will review it and nodes will look it over but that it would still be added. Don't want things to happen in a complete vacuum.

- ~ Someone agrees, but concerned by the first line in section 3B. We don't ask that of other LDDs.
- ~ Other LDDs usually only involve the concerned parties this could make changes without the concerned parties involvement.
- ~ We can add that to the process document. Don't think it's necessary.
- ~ Someone's impression was that CCB wants to see the process document before they approve the SCR.
- ~ They want more than that there's going to be a process document.
- ~ These comments need to be added in jira. (**Action Items Joe and Mitch** add comments in jira)
- ~ And Steve needs to add to the Requested Changes. (**Action Item Steve**) ~ Makes sense.

Question: Okay? Answer: Yes.

~ Sounds reasonable, but not reasonable to insist process document is written before the SCR is approved. Could be a waste of time. No problem with outlining what must be included.

If the steward team contacts a node and they don't like something it sounds like they can comment but it might not matter.

- ~ Someone was planning to include that in their jira comment.
- ~ Someone has a bad experience in PDS3 trying to get a value in. Still opposed to this. Thinks DDWG should handle it. It's being shipped to another group.
- ~ IPDA thinks if something is going to cause any controversy it should come back to the DDWG, like part of the core DD that isn't handled by EN. Any change should come to the DDWG.
- ~ Someone agrees and has had serious trouble adding a keyword in PDS4. It only applied to ATMOS, but couldn't get it through. At some point we have to believe our colleagues know what they are doing.
- ~ Someone agrees. Changes to the core need to be agreed to by the DDWG, but nodes need to be able to add what they need. People can comment, but nodes are the authority. The steward team is who has the real authority. We need a process that notifies everyone.

Question: Who puts members on the team?

Answer: People can volunteer.

- ~ Dick and Joe volunteer to be on the steward team.
- ~ If we don't make this change every change has to come to the DDWG.
- ~ There will be more negotiations with two groups.
- ~ The multilevel governance comments in jira are very good.
- ~ Everyone should read the comments. They are a good summary of the problem.

This is all about trust. The new steward has to gain trust, especially if there are cross node issues. If things get messed up the DDWG can provide oversight.

~ Okay. Suggesting a path forward. Changes should be made in jira, then Steve Joy can look at it, and if it's okay maybe we can vote and send it back to the CCB.

Question: Why do we need to vote if Steve likes it?

Answer: We don't have to.

~ We can vote on the changes now and say we think we've addressed the CCB concerns.

- ~ Someone likes having all the comments in jira before we send it back. We don't have to vote again.
- ~ The SCR isn't different.
- ~ A lot of editing has been done to the ticket.
- ~ Maybe we can have an e-vote. We want the CCB to get this ASAP. February 15 is fast approaching.

We need at least an outline of the process document in jira. Need that before we e-vote.

- ~ We need feedback from Steve Joy to make sure we are on the right track. We don't want this sent back again.
- ~ Let's ask Steve to review it by the end of the day tomorrow (**Action Item?**), then we can e-vote and send it back to the CCB.
- ~ Okay. Happy with that.

Lyle is leaving the call now.

CCB-248 - Bundle Member Entry is missing a reference type for miscellaneous collections See https://pds-jira.jpl.nasa.gov/browse/CCB-248

The Requested Changes have been updated and the lien has been removed.

Question: Are there any comments before we vote?

Answer: (Silence)

**The Vote for CCB-248:

ATMOS - Yes

IMG - Yes

EN- Yes

GEO - Yes

IPDA - Yes

NAIF - Abstain

PPI - Yes

Rings - Yes

RS - Yes

SBN-Yes**

Nine to zero, one abstain. Ed will forward this to Ron to forward to the CCB. **(Action Items)**

CCB-246 - Deprecate 'Sun' as a separate context target See https://pds-jira.jpl.nasa.gov/browse/CCB-246

Someone thinks the liens have been removed and there's new information on how we deal with products that use old LIDs.

~ Yes, there are a couple of ways to do it. We need to make sure the old LID is noted as deprecated and included in the new context product as deprecated. We can do it in the modification history.

Could also put a note in the alias list and say it's deprecated. Richard and Michael were happy with these.

~ Modification history can also include the new LID.

Question: Target identification also needs to be changed. Is that included in the Requested Changes?

Answer: That was a lien. Has been taken care of.

~ The Requested Changes section has both.

Question: Are we ready to vote?

Answered with Another Question: So, can still search on the deprecated LID and get the new one?

Answer: Yes.

**The Vote for CCB-246:

ATMOS - Yes IMG - Yes EN - Yes GEO - Yes IPDA - Yes NAIF - Yes PPI - Yes Rings - Yes RS - Yes

SBN - Yes**

Passed.

CCB-245 - Deprecate 'Airborne' as an independent host type, add airborne platforms to Instrument Host context types See https://pds-jira.jpl.nasa.gov/browse/CCB-245

Question: Have a few minor questions. If we deprecate airborne, it seem the Requested Changes are to add a few instrument host types. In observing system component - sees capital letters. Is it an issue that the types don't match up? Answer: Should be title case.

- ~ Someone is not sure they understand the issue.
- ~ The SCR has all lower case.
- ~ Needs to be title case, no underscores.
- ~ Capitalized with space between words. LIDs are lower-case. Can call it out in the SCR.
- ~ Context product LID can't have a space.

Question: Trying to match up values of attributes. Existing ones are all upper case. Not sure if that prevents a vote. Is it okay to vote with a lien?

Answer: It's fine to vote. We can fix them. Simple liens.

Should check SR chapter 6 on formatting attributes and values.

~ Happy to take the time now so we can finish this up. Enumerated attribute values must be title case except if they are an acronym. That's the answer.

Question: Vote?

Answer: Just want to make sure - re deprecating - is this a suggestion for the future? The text about updating LID is not in the Requested Changes.

- ~ There's no procedure yet.
- ~ Not part of the SCR.

Question: Is it okay to move forward?

Answer: Think so.

**The Vote for CCB-245:

ATMOS - Yes IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

Rings - Yes

RS - Yes

SBN - Yes**

Also passes.

NAIF is hanging up now.

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types and provide 'multi-host' and 'no-host' options for instruments See https://pds-jira.jpl.nasa.gov/browse/CCB-244

This is similar to the last instrument host class - no space, capitalized. We also have it with a dash and lower case.

Question: Deprecate both?

Answer: Double caps are already deprecated.

Another Question: How do you know?

Answer: In the model.

~ Confusing. That was someone's only comment, but don't want us to get in the habit of assuming LIDs convey information. There's a bug in the harvest tool that is doing that. Also, the idea that Richard makes certain recommendations - it sort of bugs me that someone not on the DDWG is making rules. Okay with earth based going away since no one has used it.

~ We want to get this through so we can give Richard the rules he has to live by, rather than him having to make judgement calls outside this group.

A guiding principal is that LIDs are unique across PDS, but no one should assume they convey information.

Someone is sympathetic to Anne's comments in jira. Can also imagen earth based being needed. Also, we don't want to confuse instrument with instrument host. If there's no host we don't have to reference a context product. The data have instruments. Don't like multiple host/no host. Don't need to document history of instruments moving around or non-existence. Can't support this.

- ~ Not everyone heard all of this some people were cut off.
- ~ Trying to solve a problem that can be solved other ways. We may end up with instruments that really are earth based, even if we don't have them now.
- ~ Part of the problem is instrument host definition. Boat, truck, etc., could be added as types for instrument host. When we get lots of data for field observations, no host, but still need to be able to track the instruments. When constructing the LIDs they would be fundamentally different. To make the LIDs consistent we would need to include a place holder for no host. LIDS are constructed to include host. The desire was to not have a blank.
- ~ Sounds like LID formation is driving the model.
- ~ We need consistency. If we don't have rules and regulations then no difference from putting in random stuff. Need this for search.
- ~ Not sure LID formation is for search. It's for uniqueness. Not sure how having host will affect search.

Question: Requested changes are to deprecate earth based from instrument host and add multi/no host for instruments. Where would that be done?

Answer: Not sure.

- ~ It's okay if we get rid of earth based, but unclear on adding multi host and no host.
- ~ TA assumes only change to model is to deprecate earth based. The rest is a change to LIDs. Might have misunderstood.
- ~ The second requested change is to add mutli/no host. It doesn't say where to add them. It's not at all clear.
- ~ Someone assumed only Earth based is a change to the IM.

Someone thinks they have read this wrong. Thought we were replacing earth based with multi host or no host.

- ~ That's not what it says.
- ~ We can't take out earth based and not put something in.

Question: Who wrote this?

Answer: ATMOS. Don't understand the concern. Everything else is lab or observatory.

- ~ It's a type value we are changing.
- ~ We are getting rid of it to consolidate. Everyone used facility options.
- ~ Someone agrees. Thinks it's fine to remove earth based if no one has used it.
- ~ Others can be added. If we need to add a truck or something.
- ~ It come down to what level of granularity we want. Only instrument host being used at present is spacecraft. No one is using lander.
- ~ So take them all out.

No different from the discussion on airborne if we want the granularity. We could lump them together, but that's a larger change.

Question: If we want to keep earth based for truck, what if we have a truck on Mars?

Answer: That's a rover.

~ This is to clean up the context products. Most are ported straight from PDS3. We can't do that if we want a certain level of granularity.

There are issues with the context model. Lots of links between different parts. Nervous about making this change with out seeing how it will fit together. ATMOS has done analysis, but not sure it would hurt to leave this in.

- ~ We could live with it. It shouldn't make a difference, but we should have a conversation. Some things are inconsistent and need to be cleared up.
- ~ The difference is with observing system component and context. Not parallel.
- ~ We've done missions very well, but earth based options not so much. Facility, telescope serve as part of instrument host.
- ~ Not telescope. It's a second level. Different set up from spacecraft. Ground based is more complicated. Looking to make it more consistent.

For SBN's balloon there were four components - that example shows us what's going on. Spacecraft is the instrument host. The instrument host concept is being overtaken. We haven't really classified all the components. Not sure we will.

- ~ Need consistence.
- ~ Yeah, but not sure if it makes sense to make a formal taxonomy for components.

Question: Should this be discussed at the F2F?

Answer: This is an evolving part of the model. Components might not be as critical as we might have thought.

~ We used to have spacecraft and ground based.

We are running over time.

Question: Should we table this for now to look at the bigger issues?

Answer: Fine. This one has the least impact for now.

CCB-243 - Consolidate Context Target Types for Samples See https://pds-jira.jpl.nasa.gov/browse/CCB-243

Question: Have we converged on a definition for sample? Is it in the Requested Changes?

Answer: Yes.

Question: Any comments?

Answer: (Silence)

**The Vote for CCB-243:

ATMOS - Yes IMG - Yes EN - Yes GEO - Yes IPDA - Yes NAIF - Not Here PPI - Yes Rings - Yes RS - Yes SBN - Yes**

CCB-242 - Add 'Field Campaign' to Investigation Type to accommodate planetary analog field studies See https://pds-jira.jpl.nasa.gov/browse/CCB-242

Question: Have we converged?

Answer: The old definition is still in the description. It needs to be removed. We could just have other investigation.

~ ATMOS will fix the definition **(Action Item)**

Question: So we're suggesting that two values change, besides just adding field campaign. Do we need to update the

TA?

Answer: TA probably needs to be reviewed.

Action Item - Steve review the TA.

We can do an e-vote.

Set next telecon date

Question: When will we meet again? January 31? We can cancel if meeting is unnecessary.

Answer: We should plan on meeting.

Tanya won't be available January 31, will get Mark to fill in.

DDWG Notes 2019-01-31

title: DDWG Notes 2019-01-31

layout: default date: 2019-01-31

January 31, 2019 Notes by Debra Kazden

Known Attendees: M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov

and R. Simpson

Observers: M.S. Bentley (alternate for T. Lim), D. Hollibaugh Baker, P. Ramirez (alternate for C. De Cesare), S. Slavney and J. Stone (alternate for A. Raugh)

DDWG Agenda

(Included in email sent January 29, 2019, from E. Guinness, DDWG agenda for telecon on Jan. 31)

- 1) CCB-202, which came to the DDWG from the CCB, has been updated in JIRA. Let me know if there is any more discussion. Homework: Each representative, please, let me know whether this SCR is ready for CCB to re-evaluate. **(Discussed)**
- 2) CCB-242 (Add field campaign to investigation type) Steve to review TA. Ready for vote? **(Discussed and Voted to Pass)**
- 3) Other topics?
- **(Brief discussion on Tech Meeting and MC F2F planning)**
- 4) Set next telecon date Feb 7 or 14?
- **(Discussed)**

DDWG Telecon

We had a request to discuss the tech meeting. It is not on the agenda, but we will start with it.

~ We will also quickly talk about the MC F2F in March.

(See email from M. Gordon on Jan 30, Re: Agenda for DDWG telecon on Jan 31 and attachments)

There is an MC F2F planned for the end of March. It's currently scheduled as a two day meeting. The DDWG could add a day to that if we need a workshop day.

~ We will think about that.

For the tech session, a draft agenda for the first day has been sent out. Looks like it will be a three day meeting. Half of the time for the DDWG and half for the tools group. The idea that caused us to ask for this meeting is CCBs 210, 211 and 212. They are kind of a chicken and egg problem. Hoping to figure out how to implement them.

CCB-210 - Need to preserve the Ingest LDD file as part of a PDS4 Product

CCB-211 - Add XML as an option for some non-label files

CCB-212 - Add Modification History to Ingest LDD

If people have comments or want to lead a topic they should let Mitch know.

Question: When is the tech session?

Answer: March 5-7.

Back to the question of if we also want a workshop at the MC F2F. I would think that with the tech session in early March that we wouldn't need a day in late March. Maybe that's too optimistic.

- ~ Someone agrees.
- ~ We will plan on the MC being a two day meeting without a workshop.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

Lyle agreed to lead the discussion on this last week. Based on that discussion we updated jira and asked everyone to review it and see if they had more comments or if it didn't seem like we had addressed the CCB's concerns. We didn't hear from everyone, but most thought it could go back to the CCB. There were still a few issues.

- ~ We should move forward.
- ~ Someone would like to see the comment about how members get in the group addressed. And who will okay the charter the group writes.
- ~ We have several other multi-discipline LDDs that do not use this suggested process. We should treat them all consistently.
- ~ One fix we discussed a year ago was to have oversight for all LDDs. Could say the instrument LDD will conform to the guidelines and rules for all LDDS.

Question: Is that satisfactory? Answer: It's an improvement.

Question: Who can put that in jira?

Answer: Steve or Ron.

- ~ Someone hears where this is going. In the Requested Changes, section 3b, thought that addressed this. Need the words to add to jira.
- **Action Items- Mitch** will write the words for jira and send them to **Steve** to paste into the SCR. **Steve** will email Ed when the changes are made. Then **Ed** will send email to Ron, Steve and Emily to alert the CCB, and we'll all see what the CCB says.

CCB-242 - Add 'Field Campaign' to Investigation Type to accommodate planetary analog field studies See https://pdsjira.jpl.nasa.gov/browse/CCB-242

Last time there were suggested edits for investigation type and Steve was going to review the TA.

~ Steve doesn't think the TA needs to change, but wants to confirm the changes are in the Requested Changes section.

A week ago there was a minor suggestion in jira.

- ~ Yes. The changes were made. Think they're fine.
- ~ Someone doesn't remember what the changes were, but if RS is happy than ATMOS is happy.
- ~ Think it was that we wanted all the definitions written out to put in the IM.

Question: Can we vote? Any objections?

Answer: (Silence)

**The Vote for CCB-242:

ATMOS - Yes IMG - Yes EN - Yes GEO - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

Rings - Yes RS - Yes SBN - Yes**

The vote is unanimous. Ed will send Ron an email **(Action Item)**

Question: Any other topics people want to bring up?

Answer: (Silence)

Question: When should we meet again? One week or two?

Answer: We were asked to review all the outstanding SCRs for the next build. So, I think two weeks.

- ~ Someone agrees, but thinks we should hold next week open in case CCB-202 comes back to us again. We need it in this build.
- \sim If we need to discuss CCB-202 again we will meet Feb. 7. Otherwise, we will meet on Feb 14 to think about the next build.

DDWG Notes 2019-02-14

title: DDWG Notes 2019-02-14

layout: default date: 2019-02-14

February 14, 2019 Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi and S.

McLaughlin

Observers: D. Hollibaugh Baker and J. Stone (alternate for A. Raugh)

DDWG Agenda

(Included in email sent February 12, from E. Guinness, DDWG agenda for Feb 14)

- 1) Discuss which open change requests to work on next. Also, are there any that should be closed because no volunteers or action has happened in quite a while?
- SCR SCR Description Created Submitter
- 244 Deprecate 'earth-based' as instrument host type 3-Dec-18 Neakrase
- 231 Document Edition object has hidden identifier-type 24-Jun-18 Raugh
- 230 Missing Constraints on Source Product 24-Jun-18 Raugh
- 223 Attributes of Special Constant class 1-May-18 Raugh
- 222 Add citation text to Citation Information 24-Apr-18 Mafi
- 220 Add ability to specify many source products via table 31-Mar-18 DeCesare
- 216 Change Uniformly Sampled units from an element to an attribute 1-Mar-18 Mafi
- 212 Add Modification History to Ingest LDD 14-Feb-18 Gordon
- 211 Add XML as an option for some non-label files 14-Feb-18 Gordon
- 210 Add the Product Ingest class to the IM 14-Feb-18 Gordon
- 209 Correct definitions of Tagged-*-Object 24-Jan-18 Simpson
- 208 Add GeoTiff as a permissible value for the attribute Encoded Image.encoding standard id 18-Jan-18 Hughes
- 205 Additional constraints/best practices for discipline and project dictionaries 20-Dec-17 Raugh
- 204 Define and enforce best practices and discipline and project dictionaries 20-Dec-17 Raugh
- 203 Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes 20-Dec-17 Raugh
- 196 Restrict use of non-printing control characters in Field Character 4-Aug-17 Simpson

- 186 ASCII String and UTF8 String whitespace handling 3-May-17 Nagdimunov
- 170 Deprecate IEEE 754 NaN and Inf in favor of PDS4 Special Constants 27-Oct-16 Simpson
- 167 Remove xmlns:pds recommendation from DPH 2-Sep-16 Nagdimunov
- 164 Display Settings not required for images 29-Jun-16 Raugh
- 138 Mismatch between context object types and values of type in Observing System Component class 24-Nov-15 Raugh
- **(Discussed)**
- 2) Cross dictionary referencing topic raised by the Imaging Node.
- **(Discussed)**
- 3) Other topics?
- **(Brief Discussion)**
- 4) Set next telecon date Feb 28? My availability in March and early April likely to be limited.
- **(Discussed)**

DDWG Telecon

No one from NAIF, RS or IPDA here today. Anne is not here, but Jesse is.

Thought that for this meeting we would go through the open SCRs and decided if they are still relevant. Maybe some can be closed. If not, we can decide when to work on them.

Tomorrow is the freeze for the next build. I think it's 9B. Can't really do anything else for the next build.

Let's go through the list starting with the oldest. The oldest is CCB-138.

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

There were comments on this one.

~ Someone thinks that with recent SCRs that this is resolved. Wants that confirmed, but thinks we can close this one.

Anne sent email to Jesse on this. She is unsure it's inapplicable and would like to at least review it.

Action Item - Anne and Jesse review the SCR to see if it is still relevant.

CCB-249 - Schematron Rule Elements - Assert and Report See https://pds-jira.jpl.nasa.gov/browse/CCB-249

This is a new SCR. It could possibly be resolved today and go in the IM.

~ Not sure how we could get it through the CCB in time.

Schematron has assert or report. Since version 1.0 all schematron rules have used assert statement, but the model allows report - except it's not supported. The question is if we want two ways to write the rule. The capabilities are equal. Assert is negative statements, report is an informational statement. If we want to allow report we need to implement it. If we do want to get rid of it the change could be made today because it's a bug fix. IPDA tried to use it, but it didn't work, so they reported it as a bug. Looked and was surprised to find it there.

Question: Comments?

Answer: Not sure we shouldn't allow it. It would require a change to LDD tool if we do allow it. We need more information about potential advantages of having it.

~ Someone was concerned about it being in the IM. We could take it out for now.

Assert and report are equivalent. Would require a lot more overhead to keep it. Against it. We don't need two ways of doing the same thing.

~ Someone agrees. The original intent was that a report would give information. I've never written a schematron rule just to give information.

We probably want it out, but unclear how it will affect things like the ingest file if we take it out.

~ It won't affect anything. It's never been used. No code has been written to handle it.

Question: Where is it in the IM?

Answer: DD rule statement. 18.20. Rule type. Most people have just ignored this. LDD says it's allowed too, but no one has used it.

~ EN hasn't used it.

It seems like we should think about this more and it will change the IM so the CCB should probably see it.

- ~ It can wait until the next build cycle.
- ~ It will probably be resolved quickly.
- ~ We need a discussion. Hopefully people will have an opinion by our next meeting. **Action Item)**

This will be on the next agenda.

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

Unless there is strong disagreement someone thinks this should stay on the list.

(Silence)

CCB-167 - Remove xmlns:pds recommendation from DPH See https://pds-jira.jpl.nasa.gov/browse/CCB-167

Someone thinks this should go away. It's nowhere in the SR, just in two figures in the DPH, but not explained. The DPH isn't part of the standards. Knows others will disagree.

Question: Comments?

Answer: This should be brought before the stewards for a formal discussion. Think there will be LDD issues that need to be brought back into the standards.

~ This didn't seem like an LDD issue.

Sounds like this needs more documentation if we are leaving it in. The DPH isn't a place to introduce requirements. Can see how having it there and no where else could be confusing.

- ~ There are reasons we might want to have it. LDD tool puts it in everything. It is being used.
- ~ That's a different issue. This SCR talks about the DPH.
- ~ Maybe we need to close this one and write a new SCR to cover the bigger issue.
- ~ Yes. This SCR has been here two years.
- ~ Someone thinks this is really just a question of best practices.

If we want to include this information that is no where else maybe we should keep it. The DPH shows lots of things that aren't required.

~ The current DPH doesn't even say why it's there.

~ The SCR should be expanded. Then we can decide where it goes.

Speaking as a DP - someone is confused by it. Unsure if it should be included.

Question: Should we cancel this SCR and start a new one to address the problem?

Another Question and Answer: So cancel this and do nothing with the DPH? Think there's a clear issue that this solves.

~ Someone agrees that we need a new SCR to include the PDS statement.

Question: So I have to prove we need this when people are already using it?

Answer: Not everyone is using it. There's no downside to using it.

- ~ LDD tool uses it.
- ~ That was your decision you wrote the tool.
- ~ From best practices. It has been used. Fine if people don't understand why. Frustrated by this.

CCB-196 - Restrict Use of Non-printing Control Characters in Field Character and CCB-170 - Deprecate IEEE 754 NaN and Inf in Favor of PDS4 Special Constants See https://pds-jira.jpl.nasa.gov/browse/CCB-196 and https://pds-jira.jpl.nasa.gov/browse/CCB-170

Dick sent notes on these two. He thinks we should do them, but there's been no action on them in two years so he is okay closing them if that's what we want to do. He thought they would strengthen the model, but okay with withdrawing them.

Someone would like to see CCB-170 stay on the list. It trickles down and stays because it's not urgent.

- ~ Okay
- ~ Someone agrees. Need to say something about NaNs. CCB-196 should probably go away. We shouldn't have to tell people not to be dumb.

We will leave CCB-170 in and someone will have to step up to work on it.

Question: Does anyone want to argue to keep CCB-196 open?

Answer: (Silence) ~ Going, going, gone.

CCB-186 - ASCII String and UTF8 String whitespace handling

See https://pds-jira.jpl.nasa.gov/browse/CCB-186

Not everyone is sure what this is about.

Question: Any comments?

Answer: (Silence)

~ Looking at jira... don't want to make a rash decision...

The issue is that we currently use ASCII String and UTF8 string token. What token does with white space is the issue. Anne had a lot of thoughts on this.

We will leave this in and do some research and discuss it again. **(Action Item)**

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes and CCB-204 - Define and enforce best practices for discipline and project dictionaries and CCB-205 - Additional constraints/best practices for discipline and project dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-203 and https://pds-jira.jpl.nasa.gov/browse/CCB-205

Steve was going to let us know what has been implemented in LDD tool.

~ CCB-203 is being implemented in this build. It's pretty straight forward. For CCB-204, might not do anything other than the first two items in the description. More software orientated

then model. There was talk of moving it to the software queue. Wasn't aware CCB-205 was in the same boat.

We will readdress this once we know what's been implemented.

~ So, there's still an action item for Steve to report on what is implemented **(Action Item - Steve)**

CCB-208 - Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id See https://pds-jira.jpl.nasa.gov/browse/CCB-208

There are still a lot of questions about this - what version of tiff, in what products, etc. Guessing there's still work to do on this.

Emily wanted this in for supplementary data.

Question: How is this affected by IMG getting GML in?

Answer: Haven't heard.

~ At an MC meeting, Trent talked about using delimited tables.

This one is still valid. Needs a lot more work.

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

This is under the hood type stuff. Steve was going to review it.

~ Steve will look at it after the next build **(Action Item - Steve)**

We will leave this open in case an issue is found.

~ Would be a change to the IM so we should leave it open.

This is low hanging fruit, We can vote on this soon.

CCB-210 - Need to preserve the Ingest LDD file as part of a PDS4 Product and CCB-212 - Add Modification History to Ingest LDD

See https://pds-jira.jpl.nasa.gov/browse/CCB-210 and https://pds-jira.jpl.nasa.gov/browse/CCB-212

These will be addressed at the tech session.

There's a plan for these.

CCB-216 - Express Uniformly Sampled/sampling parameter units as an XML attribute of Uniformly Sampled See https://pds-jira.jpl.nasa.gov/browse/CCB-216

This has never been discussed. Not sure if it's still relevant.

- ~ Reporter can't remember the issue, but thinks so.
- ~ Someone else agrees and is surprised it hasn't been pushed through since it's trivial.
- **Action Item Joe** will look at this for the next meeting.

Mitch volunteered to be on the tiger team for this.

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

This was a bi-product of source product. IMG said there was a need to specify many. No One has needed it in a hurry. Probably still valid, but low priority.

~ IMG agrees. Would like to keep it open.

Rings wants this for the next build. Has a need for it.

~ Mitch volunteered to be on the tiger team for this.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

This has never been discussed. Probably relatively easy - just add citation text. Probably the hardest part is what it would look like.

Question: Is this still valid?

Answer: There was push back on this. A lot of publications have their own way. It could go in documentation.

Action Item - Joe - will take a closer look at this and report back next time.

Last SCRs on the List

The next three SCRs on the list are from Anne. We shouldn't decide about them without her.

The last one no one has used. We were maybe going to take it out, but we tabled it. Maybe we will discuss it soon.

Question: Any objections?

Answer: (Silence)

Cross dictionary referencing

There have been emails and some strong opinions on this. It's a request from IMG. Mitch has been looking into it. ~ Mitch thinks he has a solution that IMG will be happy with. Ron did the work. This is a topic for the F2F. We've said discipline DDs should be able to inherit from other DDs, and we have best practices. The issue was that IMG wanted more exposed classes. We need to discuss this at the tech meeting.

Action Item - Mitch will send a description of the solution to Ed, Paul and Christina. They will see if that solves the InSight issue.

~ Okay.

Question: Anything else for today?

Answer: (Silence)

It is proposed that we meet in two weeks, on February 28.

Question: Any conflicts?

Answer: Lyle may need to have Lynn substitute for him.

Someone hopes all of the action items have been caught for the notes.

If anything new pops up we will look at it.

March and April might be difficult for Ed.

If there are no other comments we can close the meeting.

~ (Silence)

DDWG Notes 2019-02-28

title: DDWG Notes 2019-02-28

layout: default date: 2019-02-28

February 28, 2019 Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, S. Hughes, D. Kazden, J. Mafi and S. McLaughlin, B. Semenov and R. Simpson

Observers: M. S. Bentley (alternate for T. Lim), L. Neakrase (alternate for L. Huber) and J. Stone (alternate for A. Raugh)

DDWG Agenda

(Included in email sent February 26, from E. Guinness, Agenda for DDWG telecon, Feb 28)

- I. Review status and continue discussion of active SCR work. The list below is based on the discussion from our previous telecon.
- 1) CCB-249 Use of Schematron Rule. Request is to drop the Rule option for Schematron statements. Action item for DDWG to review this change request for discussion at next telecon.
- 2) CCB-222 Add citation text. Joe to review and report whether this request is still relevant.
- 3) CCB-220 Specify many source products in a table. Still interest in this request. Mitch willing to be on tiger team. What is the time frame for working this request?
- 4) CCB-216 Uniformly sampled. Joe to review for the next telecon. Mitch willing to be on tiger team.
- 5) CCB-210 and CCB-212 Issues related to LDDs and will addressed that the tech session.
- 6) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will look at it after the upcoming build.
- 7) CCB-203 Constraints of local dictionary. This is really a software issue. The next version of LDD should implement the requested changes.
- 8) CCB-170 Deprecate NaN and Inf. Request is to keep this open. But no plan of action or lead at this point.
- 9) CCB-138 Mismatch between context and observing system component. Action item for Jesse to work with Anne to see if recent context changes addresses this change request.
- **(Discussed)**
- II. Other topics?
- **(Discussed)**
- III. Set next telecon date Mar 14 unless I am stuck on Jury Duty.
- **(Discussed)**
- # DDWG Telecon

Anne is not here again. Jesse is the SBN representative, but is concerned because he is also on the CCB. Anne will probably be back after she meets some March deadlines. Will ask her at LPSC if she's coming back to this group.

People were going to look at the list of SCRs to see if they are still relevant. We also have two new SCRs in jira to introduce today.

CCB-249 - Schematron Rule Elements - Assert and Report See https://pds-jira.jpl.nasa.gov/browse/CCB-249

This was introduced at our last telecon. Action was for people to educate themselves on schematron rules.

~ The issue is that schematron statements can use assert or report. Both are allowed in the IM, but only assert is implemented. We could get rid of report as a bug fix. The question is if we want both. It's less complicated not to have both.

Someone looked at this is jira, is okay with dropping report, but would like to know if IPDA is using it.

- ~ They tried to use it. It didn't work. They alerted Steve. He thought it had been removed long ago.
- ~ IPDA assumed they could use it since it was there in LDDtool. Tried to use it and it didn't work. Happy either way, but sometimes it's easier not to have to use a Not statement.

Question: Why not implement it?

Answer: It's not hard, the code is there. It just doesn't check for report.

~ Seems if people want to use it maybe we should just have it.

Question: Does it change the ingest class?

Answer: Believes it's there.

~ Yes, it's a rule type. No change to schema.

~ IPDA didn't have a problem using it - it just didn't get implemented, and validate didn't catch it.

Question: Would having both options confuse novice users?

Answer: Here is where Anne would have opinions. As long as it's documented it's probably okay. That would be an impact.

- ~ There's also an impact to validate tool.
- ~ If it looks like there are two options and only one works that seems more confusing.

Question: Any other comments?

Answer: Maybe an impact on validation.

Let's have an action item to ask Anne to take a look at this.

- ~ Steve and Anne already have a telecon scheduled to discuss this. They want a software person involved too.
- ** Action Item Steve** ask Anne to look at this and ask Mike for his opinion.
- ~ We still need more opinions.

It sounds like there's a tendency to consider implementing report.

~ No one is against it. It would be in the next build.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

The action was for Joe to report on relevance.

Joe looked at this. Does not think the SCR is still relevant. The issue still exists that there's no formation rule - specifically that no place has what to use for publisher. Need to provide a way to include fully formed citations. It could be in the documentation somewhere. If it's not going in the SR we don't need an SCR.

Each journal has it's own format.

- ~ Yes. We need to make sure we define all of the required pieces, including the publisher.
- ~ We probably discussed this for PDS3.

~ Yes, and we need to port that to PDS4.

We could put the pieces in the citation description or we could have a field to fill in. The action item should be to look at journals and see if they say what to do about data. **(Action Item - Joe)** Look at leading journals - Icarus, AGU, GSA...

~ The goal is to make sure we include all the pieces people need.

~ Yes. Each journal is a little different - no standard.

We will leave this SCR in for now.

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

The questions are what the urgency is and when someone will work on this.

Question: Time-line?

Answer: It would be good to have this in for the next build, but Rings doesn't have time to work on this before May.

~ IMG has the same issue, but will try to form a tiger team.

We will check on the status of this after the tech session.

CCB-216 - Express Uniformly Sampled/sampling parameter units as an XML attribute of Uniformly Sampled See https://pds-jira.jpl.nasa.gov/browse/CCB-216

This is another one that had an action item for Joe to look at it.

~ Currently uniformly sampled has sampling parameter unit - gives some of the other parameters - applies to each. The proposal was to deprecate that and include unit for each tag.

Looked at it - gave it thought - not sure it's an improvement. It could allow errors. Looking around and it looks like either approach is valid. The current one is simpler. Recommend that we drop this.

~ I trust you.

Question: Any other comments? Any objections?

Answer: (Silence)

Another Question: Need time to think about it?

Answer: No.

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

This is an under the hood issue. The action item is for Steve to look at this after this build.

~ Steve needs about a month.

Question: End of April? After tech session?

Answer Yes.

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes. See https://pds-jira.jpl.nasa.gov/browse/CCB-203

We need to be told what changes have been made.

~ It is believed that all of 203 was implemented. CCB-204 (Define and enforce best practices for discipline and project dictionaries - see https://pds-jira.jpl.nasa.gov/browse/CCB-204) can be discussed for the next build.

[~] Someone else came to the same conclusion.

^{**}Action Item - Joe** - send email to Ron to ask him to drop this. CC Ed on the email.

Mainly software questions for CCB-204 and 205 (Additional constraints/best practices for discipline and project dictionaries - see https://pds-jira.jpl.nasa.gov/browse/CCB-205). There isn't an LDD section of jira.

CCB-170 - Deprecate IEEE 754 NaN and Inf in Favor of PDS4 Special Constants See https://pds-jira.jpl.nasa.gov/browse/CCB-170

Some people wanted this closed, others thought it is important to keep.

~ Someone thinks we do need to work it, but doesn't have time until the first of May.

We will look at this again after the first of May.

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

Anne sent email on this saying that she is sceptical about it having been addressed.

- ~ Someone thinks it might be further away from the intent of the SCR now. Not exactly worse, but it needs looking at.
- **Action Item Jesse** will look at it. And we will talk to Anne.

Other Topics

CCB-237 - Change Attribute doi to Data Type ASCII DOI See https://pds-jira.jpl.nasa.gov/browse/CCB-237

A couple of days ago someone was looking at jira - seeing where we are - and discovered that CCB-237 where we voted to change the data type to ASCII DOI has some confusion. Thought the CCB approved it, but some members wanted to discuss it more. It got dropped. Not in the list of changes for this build. Think the CCB needs to figure this out. It's probably beyond the deadline to have it in this build.

- ~ It could be done in the next two days before we start testing.
- ~ There haven't been any deaths due to the current situation, so it's probably okay to wait for the next build.
- ~ Just wanted people to be aware of this.

GIS

An email chain has been started on GIS projects. IMG node in Flagstaff wants GeoTiff for product observational and Lisa Gaddis wanted to put GIS products in a miscellaneous collection. There are a few issues. Maybe Trent should make a presentation at the next MCF2F. We need MC guidance.

Originally, an SCR was submitted for Emily. It's somewhat related, but agrees that Trent should make a presentation. Emily wasn't thinking of it being observational. Trent is. Lisa is correct that there are additional questions about where things can go. This needs to be discussed and resolved.

- ~ Miscellaneous still has to be labelled it's not like the old Extras directory. The problem is that a typical GIS format is a shape file priority format. Could change.
- ~ There are routines to make PDS compliant products. Would get GIS products in some other way.
- ~ We need documentation, especially on the restrictions.
- ~ Agree. Need to be clear on what's allowed and not allowed.

Someone is concerned about allowing this in miscellaneous. GIS is bigger than PDS. Putting it in the miscellaneous collection is the wrong direction to go. We need leadership from Trent. We don't want GIS to ruin PDS.

- ~ They have three formats. The issue of miscellaneous is for support files. Willing to handle them another way.
- ~ Maybe we need a GIS collection. Seems too big for miscellaneous.
- ~ It wasn't meant to be a grab bag like Extras.

^{**}Action Item - Steve** Ask Trent to discuss this at the MC. It might spawn more SCRs.

- ~ Steve can ask him to be on the F2F schedule. We need a GIS expert to take the lead.
- ~ Trent is the expert.
- ~ He's already proposed to the MC and there's an SCR in the hopper. We need a more specific approach.
- ~ There was a GML SCR.
- ~ The SCR is from Emily.

Two new SCRs

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

This is another unit of measure type. Wants unit equals and it's not allowed. Haven't finished going over the SCR, but not a very major SCR. Will continue to flesh it out. Will be ready to discuss next time. Might have Matt present it.

Question: Need help?

Answer: Looking at the units of energy SCR for guidance.

CCB-250 - Correct schematron rule "pds:Information Package Component Deep Archive/pds:checksum type" to test for 'MD5' not 'MD5Deep 4.n'

See https://pds-jira.jpl.nasa.gov/browse/CCB-250

This is from NSSDC yesterday. This is to correct a schematron rule. The NSSDC has been testing ingest packages. One of the elements in SIP label has checksum type. Basically, this is a bug fix. It affects schematron, DPH and generator tool would need a tweak. Would like it in system ASAP so testing can be done.

- ~ It's past the deadline. Next build is for Fall, but we can work on this and get it to the CCB.
- ~ Fine, but will need help from EN to do the necessary tweaks. Document writing team would need to change the DPH.

Question: Any comments?

Answer: It seems the issue is changing a permissible value, convert to MD5. Not sure I understand the issue.

- ~ Not a keyword.
- ~ The issue is with the IM, not schematron. Could deprecate the value. That's the simple solution. But not sure why.
- ~ MD5Deep forces a specific format. If this is about the coding type then that's software.
- ~ Not sure I understand what NSSDC needs to change.
- ~ The class is confusing.
- ~ We see attribute type and get confused. Maybe just need clarification upstream.
- ~ Don't know. Sounds like a particular format was the intent. Unsure.
- ~ The definition of checksum manifest says two column table so parsing standard ID is for the table. The output from the software. So the format of the file is what's being required.

This is looking at type for manifest checksum deep archive - 1840.

- ~ Yes, checksum of manifest table.
- ~ In IM there is no permissible value.
- ~ For checksum type there is. Should be MD5.
- ~ That's what we are proposing.
- ~ Okay, so the permissible value is MD5Deep and you want MD5. You want that changed. Now I understand and I agree.

Question: Is the SCR okay?

Answer: It needs Requested Changes.

~ That will be a lot like the Proposed Changes. The change is to the IM instead of to schematron. If you don't want it to go to the CCB say it's a change to schematron, but if it's a change to a permissible value and the IM then it goes to the CCB.

^{**}Action Item - Stef** will edit the SCR and ask Steve's opinion.

We can discuss this again at our next telecon. We need a TA when the changes are made, then we can vote soon. \sim Great.

Question: Any other topics to discuss?

Answer: (Silence)

Next Telecon Date

Our next meeting might not be in two weeks. March 14 Ed might have jury duty.

- ~ Dick will be out of the country and would be okay postponing the meeting.
- ~ The weeks after are LPSC and then the F2F.

We'll tentatively meet on March 14.

Maybe we can meet during LPSC.

DDWG Notes 2019-03-14

title: DDWG Notes 2019-03-14

layout: default date: 2019-03-14

March 14, 2019 Notes by Debra Kazden

Known Attendees: C. DeCesare, E. Guinness, R. Joyner, L. Huber, S. Hughes, D. Kazden, J. Mafi, A. Raugh Observers: J. Stone and M. Tiscareno (alternate for M. Gordon)

DDWG Agenda

(Included in email sent March 12, from E. Guinness, Agenda for DDWG, Thursday, March 14)

- I. Review status and continue discussion of active SCR work.
- 1) CCB-251 Add units of Gmass. Anything to report?
- 2) CCB-250 Correct schematron rule from md5deep to md5. Still needs a Requested Changes section and a TA.
- 3) CCB-249 Use of Schematron Report. Request is whether to keep or drop Report option for Schematron statements. Steve was going to discuss with Anne, who was not present at the last telecon.
- 4) CCB-222 Add citation text. Joe to review and report whether the current model has sufficient information to construct a valid citation for commonly used journals.
- 5) CCB-210 and CCB-212 Issues related to LDDs and will addressed at the tech session. Is agenda ready?
- 6) CCB-203 Constraints of local dictionary. This is really a software issue. The next version of LDDtool should implement the requested changes. Do we have a final list of LDDtool to check against this SCR?

 (Discussed CCBs 250, 249, 222 and 203)
- II. New change request
- 1) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group.
- **(Briefly Discussed)**
- III. Parked until May timeframe
- 1) CCB-220 Specify many source products in a table. Still interest in this request. Mitch willing to be on tiger team.
- 2) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will look at it after the upcoming build.
- 3) CCB-170 Deprecate NaN and Inf. Request is to keep this open.
- **(No Discussion)**
- IV. Other topics?
- **(No)**
- V. Set next telecon date Not until April 11 due to LPSC, PDS MC F2F and me being out of the country.
- **(April 11)**

DDWG Telecon

We are missing representatives from IPDA, RS, NAIF and NSSDCA today. Matt is here as an alternate for Mitch.

First, we will run through the SCRs that we have been discussing. There's a new one from IPDA. If an IPDA person comes we'll discuss it.

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

There are no updates on this yet.

CCB-250 - Correct schematron rule "pds:Information Package Component Deep Archive/pds:checksum type" to test for 'MD5' not 'MD5Deep 4.n'

See https://pds-jira.jpl.nasa.gov/browse/CCB-250

There was an email from Stef. She's confused about how to add the Requested Changes section to the SCR. Will contact EN for help. The TA is done. Once the changes are added we can review them and call for a vote. Maybe an e-vote.

- ~ The lien in the TA is requested changes text gives suggestions.
- ~ Someone thinks Stef was confused about how to add the section.
- ~ Maybe concerned because the SCR focused on the schematron rule, which is generated automatically.
- **Action Item Steve** will paste the requested changes text from the lien into the SCR for Stef to review and make sure it's what she wants.

CCB-249 - Schematron Rule Elements - Assert and Report See https://pds-jira.jpl.nasa.gov/browse/CCB-249

The last action on this was that Steve and Anne were going to discuss this. Sounds like we're moving towards leaving report in and implementing it with LDDtool.

- ~ Yes. Anne still needs to review it. **(Action Item)** ~ Anne is still working on other stuff but will soon.
- ~ People are pretty much okay with it being implemented, but wanted to hear Anne's perspective.
- ~ It's redundant, but makes the logic easier in certain tests. If it's easy to implement, fine.
- ~ We will wait for Anne's review.

Someone is still concerned about it being redundant. We might need guidelines written up on which to use when.

- ~ The question is should PDS care what DD writers do as long as tests demonstrate correct behavior in the label.
- ~ We need guidance and best practices.
- ~ The mythical best practices for DDs.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

Joe sent an email with a Power Point presentation for this discussion. (See email from J. Mafi, March 14, Re: Agenda for DDWG, Thursday, March 14, data-citation-190314.pptx) Sent five minutes before the meeting. Ed will project the slides on WebEx.

Starting with slide 2 - It's a quick overview. The goal was to find the primary publications for data citations and make sure we have all the elements for citing data. Found that guidelines were hard to find, vague or didn't exist, but did find FORCE11 data citation principles and ESIP Commons Data Citation Guidelines for data providers and archives.

Slide 3 - FORCE11 data citation principals are fairly general. Gives reasons why data should be cited and what needs to be accomplished. Principals endorsed by many publications that we work with, but no specific list of elements to include.

Slides 4-6 ESIP does provide guidelines - shown on the slides. Of the required elements we have some, for author, we have author list, for release date we have publication year. We have title and version in our identification area. We don't have archive/distributor. For locator/identifier we have logical identifiers and DOIs in newer versions. Most of what was found pointed to the DOI. Access date and time will have to be provided by the data user. There is also a list of suggested elements - subset used, editor... Not sure we have a way to fill them all in, but also not sure how important they are to data citations in general.

Question: Any questions or comments? Another Question: Does order matter?

Answer: Each journal has it's own way to specify things. Important thing is to have all the elements defined. ESIP seems to satisfy it all.

~ There are some things that can be handled in the DOI, like data in the larger work.

Someone tried to look at the AGU site and another one - agrees that discussions on citing data are very vague or non-existent.

~ For the most part, our journals are way behind the curve behind other sciences. We need to encourage journals to catch up with the rest of the world.

Action Item - Steve will send link for the Research Data Alliance to Joe.

Based on what was found, thinks these are the actions, mainly define values for archive/distributor and document where all the pieces can be found to cite a product. Much of this is in the citation area, but not all. Would be good to have one place where all the elements are listed.

- ~ Might want to check the fair data principals. Answer to the first action is that it's NASA PDS as archive/distributor. That's the ultimate publisher for our archive. Can discuss how to add the individual nodes.
- ~ Someone thinks that what was used in PDS3. Reasonable.
- ~ It carries a sense of permanence. As far as how to cite, that's at the discretion of the journal. Can visit crosscite.org. They have been developing a language for which journal editors can define their citation. It does scripting to say what the citation should be. Can paste in a working DOI and it will let you pick a citation style. Several hundreds to choose from. If the MC were to get involved and define a format for our journals, they might be receptive.

So, to resolve the SCR there are two parts. Need to have enough of the right information and need to figure out what rules we need. Also have to document what we think it should look like. Then we could bring that to the MC and see if they want to take that to a larger audience. Maybe Joe can look at additional information and update this presentation.

(Action Item - Joe) ~ Look at DOI requirements too.

Back to ESIP - forgot to say that the start items are required in ESIP list. Likes the suggestions.

Question: Any other comments?

Answer: (Silence)

This is a kind of different scope from how the original SCR was written, but it's important.

CCB-210 - Need to preserve the Ingest LDD file as part of a PDS4 Product and CCB-212 - Add Modification History to Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-210 and https://pds-jira.jpl.nasa.gov/browse/CCB-210 and https://pds-jira.jpl.nasa.gov/browse/CCB-212

These will be discussed at the tech session.

The draft agenda for the tech session has not been circulated yet.

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes See https://pds-jira.jpl.nasa.gov/browse/CCB-203

We are still waiting for a list of changes. Maybe it will also satisfy parts of CCBs 204 and 205 (Define and enforce best practices for discipline and project dictionaries and Additional constraints/best practices for discipline and project dictionaries).

~ The changes are in the current release notes. All of CCB-203 has been implemented. The release notes can be distributed to the DDWG. **(Action Item - Steve**) ~ We can compare the release notes to the original spreadsheet and check this off.

~ EN worked off the CCB in jira, not spreadsheet. Thinks the spreadsheet was divided into three SCRs.

Question: Has anyone tried the new version yet?

Answer: Geometry LDD now has an error message due to these changes.

- ~ That's appropriate behavior. That's good.
- ~ CCB-203 was pretty straight forward.

CCB-252 - Add "Not Applicable" to wavelength range in Science Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

No one from IPDA is one the call today. This is a new one from Mark about adding N/A for wavelength range in science facets. They want to require science facets, but there isn't always a wavelength range.

This is what mission level schematron is for. Personal opinion is that this violates the consistency rules we have for the IM.

There's not much to discuss until we hear from Mark. This will be on the agenda for next time.

Other Topics

Question: are there any other topics people want to discuss?

Answer: (Silence)

Next Telecon

Ed's availability is limited - LPSC, MC and then on travel. Next time he is available is April 11. We can meet earlier if someone wants to host that.

~ It's fine to wait until April 11.

We will meet April 11. Maybe we can work by email between now and then.

DDWG Notes 2019-04-11

title: DDWG Notes 2019-04-11

layout: default date: 2019-04-11

April 11, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, D. Kazden, J. Mafi, S. McLaughlin, A. Raugh, B. Semenov and R. Simpson

DDWG Agenda

(Included in email sent April 8, 2019, from E. Guinness, DDWG agenda for April 11)

- I. Review status and continue discussion of active SCR work.
- 1) CCB-251 Add units of Gmass. Anything to report?
- 2) CCB-250 Correct schematron rule from md5deep to md5. Requested Changes section has been updates. Has the TA lien been met? If so and no other comments, we should be ready to vote.
- 3) CCB-249 Use of Schematron Report. Request is whether to keep or drop Report option for Schematron statements. DDWG is generally in favor of this. Anne wanted to review more.
- 4) CCB-222 Add citation text. Joe to update his presentation based on information from Anne and Steve.
- 5) CCB-210 and CCB-212 Issues related to LDDs and will addressed at the tech session. Is agenda ready?
- 6) CCB-203 Constraints of local dictionary. This is really a software issue. The next version of LDDtool should implement the requested changes. Do we have a final list of LDDtool to check against this SCR?

 (Discussed Voted to Pass CCB-250 to the CCB)
- II. New change requests
- 1) CCB-254 Add 'Gravitational Waves' as value for Target Identification.type. Requested to support radio science investigations.
- 2) CCB-253 Add Units of Force as a unit of measure. Request to support surface science.
- 3) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group. **(Brief Discussion)**
- III. Parked until May timeframe
- 1) CCB-220 Specify many source products in a table. Still interest in this request. Mitch willing to be on tiger team.
- 2) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will look at it after the upcoming build.
- 3) CCB-170 Deprecate NaN and Inf. Request is to keep this open.
- **(Added CCB-244 to this list)**
- IV. Other topics?

1) Comments for tech session?

(Discussed CCB-202)

V. Set next telecon date - Will April 25 work?

(Yes)

DDWG Telecon

EN and IPDA are not on the call today.

We will start with a review of the status of some of the SCRs we've talked about, do a brief introduction for the new ones and see if there are any actions we need to take.

I. Review status and continue discussion of active SCR work

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

No news yet. Won't have any before the end of the month.

CCB-250 - Correct schematron rule "pds:Information Package Component Deep Archive/pds:checksum type" to test for 'MD5' not 'MD5Deep 4.n'

See https://pds-jira.jpl.nasa.gov/browse/CCB-250

The requested changes section has been added to the SCR. It had a lien - that's been removed. There was a comment in jira...

- ~ Someone thought we wanted to hard wire the format, if not then no...
- ~ This is just for delivery to the deep archive.
- ~ We debated this last time. Request was to change the checksum type, but we still have MD5 as a parsing type.
- ~ If people are okay with it, then no objections.

Question: Are there any objections to voting?

Answer: (Silence)

**The Vote to pass CCB-250:

(EN voted Yes by email)

ATMOS - Yes

IMG - Yes

GEO - Yes

IPDA - Not Present

NAIF - Yes

PPI - Yes

Rings - Yes

RS - Yes

SBN - Yes**

This passes the DDWG and will go to the CCB for final approval.

People at NSSDCA will be happy.

CCB-249 - Schematron Rule Elements - Assert and Report See https://pds-jira.jpl.nasa.gov/browse/CCB-249

There weren't any strong objections. Not sure if we want to vote now. Maybe we can do an evote.

Question: Are there any comments?

Answer: The SCR was not clear about what they are going to do. It should say report is going to be implemented.

- ~ There's no Requested Changes section yet or T.A. It's correct in the model, but not implemented in LDDtool yet.
- ~ It's more of a bug fix.
- ~ We need to clear this up in jira.
- **Action Item Ed** will discuss this with Steve (or email him), and we can evote or finish this next time.

Reasonable. Need the T.A to see if this really is a bug fix.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

There have been comments added in jira. One suggestion is that we might want to close this off and put in a new one more related to our discussions about how different publishers have different formats.

- ~ It came up in the SCR comments that this SCR has really changed. The question is if we want to close or rewrite this. We need to identify all the elements required to support all the publishers. We want to make sure we include everything necessary in our metadata.
- ~ Rewrite it. A new SCR is more work.
- ~ It can be rewritten as a stub for now. We still need more information.
- ~ If you leave it there so the history will still be there.

This is information that is also needed for DOIs. We might want to look at the bigger picture and solve the bigger problem.

- ~ We can leave it as is for now. We're supposed to discuss DOI process at the tech session. We can decide if we want to roll it up then.
- ~ Okay.

The agenda has gone out for the tech session.

- ~ Jordan was planning to send an update.
- ~ What we have is probably pretty close to what we will do next week.

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes See https://pds-jira.jpl.nasa.gov/browse/CCB-203

Steve sent a list of implemented changes. There are also changes listed in the release notes.

Action Item - Ed will compare all that to the Requested Changes in jira, and make sure it's all implemented.

II. New change requests

CCB-254 - Add Enumerated Value to Target Identification.type for Gravitational Waves See https://pds-jira.jpl.nasa.gov/browse/CCB-254

This is a new one from RS. They need a standard value for target type, especially for Cassini, for searches for gravitational waves. The closest there now is magnetic field, but that's not correct. That's more around planets. Gravitational waves aren't around bodies. A side issue is that name is an attribute, but that's not required, not so worried about that.

Question: Any comments?

Answer: (Silence)

Another Question: What do we need to do to get this ready for a vote?

Answer: Maybe a tiger team to see if there are other target types to include. For this one, we just need a T.A and then we can go forward.

- ~ For things like dust, SBN has been dealing with it in the PRS. Maybe that should be considered in addition to targeting. It's a hard question for things that are not pointed at a solid body.
- ~ We should keep this focused on gravitational waves and get the T.A if there are no objections.
- ~ People agree.

CCB-253 - Add Units of Force as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-253

This is a new one from IMG to support Mars 2020. It's not urgent. They don't launch until next year.

The SCR is simple. They want to add a units of force class for the the units of measure type. There's currently no way to describe what they need for Mars 2020.

Question: Any comments?

Answered with Another Question: It is in the main DD, will it also appear in the mission LDD?

Answer: That's an interesting question. At the MC, we discussed a different unit question. Steve says all units need to be in the main DD.

- ~ That makes sense because we want them tightly controlled. Standard units help with use in LDDs too.
- ~ IMG agrees. They should be in the core, but it's too early to know where it will be used for Mars 2020. Maybe in a mission LDD. There's been no label activity yet.

It would be nice to get this done for the next build. It shouldn't be hard. We may need more information. We recently did an SCR to add units of energy as a unit of measure. Maybe IMG should look at CCB-240 to see if there is more information to add to the current SCR.

Action Item - Christine will look at CCB-240 to see if there's anything to add to this new one.

CCB-252 - Add "Not Applicable" to wavelength range in Science Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

No one from IPDA is here today. Maybe we should wait for them on this.

Action Item - Everyone look at this and add comments in jira.

We will discuss this next time.

III. Parked until May time-frame

There's no need to discuss this now.

We should add CCB-244 (Deprecate 'earth-based' from Context Product Instrument Host types and provide 'multi-host' and 'no-host' options for instruments) to the list. This is the context product SCR that we didn't finish for the last build. ~ Okay.

IV. Other topics?

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

There was email on this one, which we passed.

It's still in the queue for implementation. Doesn't seem to be anyone in charge. We need someone to get the steward team moving. We don't want this to fall between the cracks.

Lyle, Joe, Dick and Sebastian are on the team. Sebastian was going to lead, but maybe we've moved on from that.

- ~ The team needs Steve to tell them what to do.
- **Action Item Ed and Lyle** will discuss this with Steve and figure out what needs to be done and who will do it.
- # V. Set next telecon date Will April 25 work?

April 25 is in two weeks. It's after the tech session. Maybe we could summarize the tech session accomplishments. \sim People are okay with April 25.

Our next meeting will be April 25.

DDWG Notes 2019-04-25

title: DDWG Notes 2019-05-09

layout: default date: 2019-05-09

May 9, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, D. Kazden, T. Lim, S. McLaughlin, A. Raugh and R. Simpson

DDWG Agenda

(Included in email sent May 7, 2019, from E. Guinness, DDWG telecon agenda for May 9)

My guess is that the deadline for completing requests for the next build will be around August 15.

- I. Review of last minute model (?) and LDDtool changes to support first InSight release We will discuss if Steve is available. Otherwise, we will follow up when he is available.
- **(Discussed)**
- II. Review status and continue discussion of active SCR work.
- 1) CCB-251 Add units of Gmass. Tiger team will investigate how units of measure could be defined in LDD. Any status?
- 2) CCB-244 Deprecate 'earth-based' from Context Product Lynn to figure out a plan to address this request.
- 3) CCB-222 Add citation text. Status update?
- 4) CCB-203 Constraints of local dictionary. This is really a software issue. The next version of LDDtool should implement the requested changes. I reviewed the LDDtool release notes and they appear to address all issues listed in this request.
- 5) CCB-202 Instrument type in Context Products this change has already been approved. Lyle is working on setting up a telecon to discuss its implementation.
- **(Discussed)**
- III. New change requests Are any of these ready to work?
- 1) CCB-256 Need method to provide permissible value definitions in Ingest LDD. Requested by Anne.
- 2) CCB-255 Namespace version dependencies are not documented in the Information Model. Requested by Anne.
- 3) CCB-253 Add Units of Force as a unit of measure. Request by Imaging to support surface science.
- 4) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group.
- **(Discussed)**
- IV. Parked until May timeframe Are any of these ready to work?
- 1) CCB-220 Specify many source products in a table. Still interest in this request. Mitch willing to be on tiger team.
- 2) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address after the upcoming build.

3) CCB-170 Deprecate NaN and Inf. Request is to keep this open.

(Discussed)

V. Status tech session action items – How do we track progress?

(Brief Discussion)

VI. Other topics?

(None)

VII. Set next telecon date – Will May 23 work? We will have conflict with Mars2020 DAWG on July 11 and Sept 5 if we keep to every other week telecon.

(Next DDWG May 23)

DDWG Telecon

We have a pretty full agenda to keep track of everything. We may not discuss everything today.

I. Review of last minute model (?) and LDDtool changes to support first InSight release

It was an interesting week last week - getting ready for the first InSight release. There's been a flurry of email. Not sure what changed - the IM or LDDtool.

~ Schema changed. It had to be fixed for local identifier to work. Issue is about id referenced and ref-id having to be in the same namespace. So, people had to be in PDS namespace and there was an issue with attributes all having to be exposed. They needed to be exposed and globally defined. EN had to fix things. We can discuss it more later. LDDtool was updated.

Question: Has 1.B.1.0 been released?

Answer: It should be in the release directory.

- ~ It should be released. Don't see it on the released schema page.
- ~ It should be in the release directory.
- ~ Someone is concerned about this because this change was done outside the DDWG and CCB and it's not documented. We should work backwards so it's documented.

Action Item - Steve will write an SCR for this.

Maybe this can be discussed in more detail when Steve is back (he's on travel) and we can see if there are any other things to consider.

Question: Any comments?

Answer: Need to think about what this says for getting data in early. We shouldn't be discovering these things on the day of release. No one is doing any testing.

~ You are right. We need more testing.

Question: What actually revealed the problem?

Answer: It was discovered late. Labels had been validated months ago. A few dictionaries changed after the tech session, so the labels had to be updated to match. Re-testing is how the issues were found.

- ~ So, basic testing showed the problems.
- ~ Yes. Using the validate tool as usual.

We will have this on the agenda again. We want to make sure this is documented.

II. Review status and continue discussion of active SCR work.

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

Discussion is about defining units of measure in LDDs. Team has done a mock up. People should look at it in jira.

- **(Action Item Everyone)** Unit attributes are marked with namespace so user would know what dictionary to find it in. The question for Steve is if this is reasonable and for the DDWG is if this is what we want to do.
- ~ Someone looked at it. It was Greek to them.
- ~ Someone else looked at it it was what they were hoping we could do. Likes the feel of it, but agrees we need Steve to look at it when he has time.
- ~ Steve doesn't have time yet, but it sounds reasonable. Will look soon. **(Action Item Steve)**

There's still the more fundamental issue of if we even want to do this. Not sure we do.

- ~ Not sure this SCR will live. All we are talking about now is if we want to have these in LDDs.
- ~ Don't want to go down the road want to keep units in the common data dictionary.
- ~ That's the discussion we need to have.
- ~ Yes, but we don't want the core cluttered up with specialized units. We need to discuss it, but we also need to know what's even possible.

Question about mock up: A namespace was defined for the example - can it be used with a different wrapper class? Answer: Yes, need to test that, but it is a possibility. We could think about having a unit namespace.

~ Containment makes it easier. Namespace might make it difficult.

We don't want to load too much intelligence into LDDtool. This is a weird question. If a mission needs a unit, they might need it in the core or they might want it in a mission LDD.

Action Item - Everyone - look at this - **Steve** too, and see if there are any issues with LDDtool or if this is even possible. If it is possible, then we will decide if we want to do this.

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types See https://pds-iira.jpl.nasa.gov/browse/CCB-244

The question is how we address this.

~ It hasn't been cleaned up yet, but will be.

RS sent email to people regarding a Cassini calibration product. If this goes away, RS will need a way to discuss things that are entirely Earth based.

- ~ The problem is talking about type value for instrument host. Usually things like observatories. The question is what happens for hosts that aren't rovers and such. There are hundreds of Earth based hosts. Unclear what they can be replaced with. Not sure what would happen to ground based data.
- ~ Telescope or laboratory.
- ~ Question is what's the object.
- ~ Not following.
- ~ Yeah.

Some instruments are a whole array of telescopes, but things like GPS can be hand held. We need something that will work.

Action Item - Dick will send the Cassini calibration email to Lynn.

This seems like it will make instrument host go away. We need to understand this.

- ~ We will wait to hear from Lynn and then discuss this.
- ~ Right.

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes See https://pds-jira.jpl.nasa.gov/browse/CCB-203

Ed had an action item to compare the requested changes to the release notes. He did and reports that it appears all the changes were made. Not sure if anyone else looked or wants to. Not sure how to close this out. It's really a software issue.

~ Just close it.

Question: Is there a software issue in jira that corresponds to this?

Answer: Not sure, will ask Jordan. But 203 is complete. **(Action Item - Steve)** ~ We need to make sure the accounting is done in order to close this.

~ Steve will update Jordan. All changes are done in github now. Jordan may want to make an official entry about it. Steve will cc Ed.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

This has passed, but we need to get it up and running.

Question: Is there an update?

Answer: There was a telecon. A draft on how we're going to proceed is being circulated.

~ It will be circulated to the team first. The deadline is June 4.

Good progress.

III. New change requests

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD and CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-256 and https://pds-jira.jpl.nasa.gov/browse/CCB-256 and https://pds-jira.jpl.nasa.gov/browse/CCB-255

These two are both new and can be deferred for two weeks while mock ups are made for them. Both are related to provenance and details - when you define values for reference type in LDD there is no way of saying what the relationship means. It's explicit in other cases. CCB-255 is about only way to tell what version of the namespace is from namespace version hints. There's an issue of non-reproducibility.

~ This has been an issue with the Geometry LDD, so GEO is interested in this. Include Ed on the sounding board for CCB-256.

~ Steve also wants to be included. It's a complicated issue.

Question: Anyone else?

Answer: Mitch has an interest too.

~ When the Geometry LDD was built with the newest tool it gets an error that a few classes don't have defined reference types.

Question: What about CCB-255 - anyone want to work with Anne on that one?

Answer: Mitch and Steve do.

CCB-253 - Add Units of Force as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-253

This isn't urgent. Jira was updated just before this telecon. If people could look before next time that would be great.

(Action Item - Everyone)

Someone was ready to vote, unless this has changed dramatically.

~ Needs work still.

- ~ It can be done in the next two weeks.
- ~ We might resolve this quickly.

CCB-252 - Add "Not Applicable" to wavelength range in Science_Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

This has been there awhile. From PSA. We really haven't discussed this yet.

Question: Should we wait for Mark to be on the call?

Answer: They are requiring wavelength range, can say N/A. Seems like they justified their need for it.

- ~ IPDA understands there are some objections. Could find a way around it. It would be useful to PSA to require all data products to use it. Can sort it out internally.
- ~ It kind of goes against the DDWG approach. Usually we would make an N/A thing optional.

This will probably be withdrawn.

- ~ Discuss it internally and then if you want to withdraw it send email to Ed and Ron. **(Action Item Tanya)** ~ Okay.
- # IV. Parked until May time-frame

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

Team will schedule time to look at this. No time to look yet.

~ Add Ed to the group.

##CCB-209 - Correct Definitions of Tagged * Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

This was going to be addressed after the release, which hasn't happened yet.

~ Not yet.

CCB-170 - Deprecate IEEE 754 NaN and Inf in Favor of PDS4 Special Constants See https://pds-jira.jpl.nasa.gov/browse/CCB-170

There was a request to keep this open. There's no plan of action.

- ~ Reporter was ready to withdraw this, but someone wanted it kept open. They don't have time for it now. We can withdraw it and if it becomes a problem a new SCR can be put in.
- **Action Item Dick** will email Ed and Ron to withdraw the SCR.
- # V. Status tech session action items How do we track progress?

Jordan put in a lot of PDS F2F and numbers. Not sure if those are the action items from the tech session. Ed will email Emily and Jordan to see if that's a complete list and how we're tracking them. **(Action Item - Ed)**

There are minutes from the meeting. We could put them there too.

- ~ We need to track progress.
- ~ Someone thinks google documents and github are new to some wonders if there can be a way for people unfamiliar with them to find this stuff.
- ~ Yes, and we need training on github.
- ~ Someone thought one of the action items was that someone would provide that training.

VI. Other topics?

None.

VII. Set next telecon date

May 23 is okay for people.

Mars2020 meetings will possibly overlap with this telecon.

Question: Last minute comments?

Answer: (Silence)

DDWG Notes 2019-05-09

title: DDWG Notes 2019-04-25

layout: default date: 2019-04-25

April 25, 2019

Notes by Debra Kazden

- **Version 2 April 29, 2019
- ~ These Version 2 notes include two corrections.

In the CCB-254 discussion:

Original Notes say:

"Make gravitational waves the type."

Changed to: "Make gravitational waves the name."

~ In the CCB-254 vote:

Trailing double asterisks moved to the end of the parenthetical remark.

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, R. Joyner, L. Huber, S. Hughes, D. Kazden, J. Mafi, S.

McLaughlin, A. Raugh, B. Semenov and R. Simpson Observers: M. S. Bentley (alternate for T. Lim)

DDWG Agenda

(Included in email sent April 23, 2019, from E. Guinness, DDWG telecon agenda for April 25)

- I. Review tech session actions related to LDDs Mitch
- **(Discussed)**
- II. Review status and continue discussion of active SCR work.
- 1) CCB-254 Add 'Gravitational Waves' as value for Target Identification.type. Requested to support radio science investigations. DDWG is generally in favor of this. But a TA is needed before a vote.
- 2) CCB-251 Add units of Gmass. Mitch modified this request. Please review it. I would like to have a vote on whether units of measure should be allowed to be defined in local dictionaries.
- 3) CCB-249 Use of Schematron Report. Request is whether to keep or drop Report option for Schematron statements. DDWG is generally in favor of this. Still needs a Requested Change section and a TA in order to vote Steve H.
- 4) CCB-222 Add citation text. Do we keep this or change its scope?
- 5) CCB-203 Constraints of local dictionary. This is really a software issue. The next version of LDDtool should implement the requested changes. Need to review whether all issues are addressed by new version of LDD action to Guinness.
- 6) CCB-202 Instrument type in Context Products this change has already been approved. Lyle is working on setting up a telecon to discuss its implementation.
- **(Discussed. Voted to Pass CCBs 254 and 249 to CCB.)**
- III. New change requests
- 1) CCB-257 Add 'Solar Corona' as value for Target Identification.type. Requested by Dick.

- 2) CCB-256 Need method to provide permissible value definitions in Ingest LDD. Requested by Anne.
- 3) CCB-255 Namespace version dependencies are not documented in the Information Model. Requested by Anne.
- 4) CCB-253 Add Units of Force as a unit of measure. Request by Imaging to support surface science.
- 5) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group.
- **(Discussed)**
- IV. Parked until May timeframe
- 1) CCB-220 Specify many source products in a table. Still interest in this request. Mitch willing to be on tiger team.
- 2) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address after the upcoming build.
- 3) CCB-170 Deprecate NaN and Inf. Request is to keep this open.
- **(No Discussion)**
- V. Other topics?
- **(No)**
- VI. Set next telecon date Will May 9 work?
- **(Yes)**
- # DDWG Telecon
- # I. Review tech session actions related to LDDs

Mitch put together a presentation for this discussion. (See email from M. Gordon, RE:DDWG telecon agenda for April 25, sent April 24, 2019, open attachment - Tech Session Summary-20190424.pptx) This is not a time to re-discuss things, this is a summary. We had asked to have two days at the etch session to hammer out solutions.

We have two new requirements - all LDDs must be generated by LDDtool, which needs to go in the SR, and that the dictionary source file input file needs to be archival. LDDtool will produce a label for the source file and for the output of the dictionary. To implement this we need to make some changes to the IM. EN will take the lead on that. Hopefully, in time for the fall build.

We need to produce documentation, including easy user guides, process document, best practices. There will be a user guide for each namespace. Susie will produce a draft outline so we can be consistent. The goal is to have them for the next build. They will be put in github.

Discussed LDD versioning. Three identifiers - IM version, LDD version identifier and product version identifier. LDDtool has an option to identify the software version of LDDtool.

CCB-211 is still active. Namespace registry will be updated.

We agreed to allow dictionaries to reuse classes from other discipline level dictionaries. Classes to be reused must be exposed in the original dictionary.

Every LDD should have regression test files. Regression testing will be done on each version of the LDD.

Other topics discussed included:

- 1) LDDtool doesn't support all the external agencies. Action Item is to Steve, Tom and IPDA to work on resolving this for the fall build
- 2) Accumulating collections if a product is a primary member of a collection it is primary to all versions of that collection. Association is with the LID, not the LIDVID (except for some SPICE kernels).
- 3) EN will reorganize all of the schemas on-line.
- 4) Derived units part of CCB25. We will have a discussion on this today.

Question: Any Questions?

Answer: Yes. On slide 4. Don't remember discussing file name root construction. Not sure everyone has agreed to that and I hate it.

- ~ We talked about this last August. This is repeating what was discussed and already agreed to and is what LDDtool does.
- ~ Alright.
- ~ LDDtool uses the version of the IM it was built with. It doesn't matter what you put in your input file schema. We may discuss that in the future.

Question: Any more questions?

Answer: Yes, regarding the process and CCB-202, first job is to write the process document. Any thoughts on how that's all going to work together? There's an issue with trying to submit new instrument context products.

- ~ No thought on all this yet. Not sure what to do about not being able to make a new instrument context product.
- ~ In older versions, someone gets a warning about radio science. The issue is that the type is deprecated.
- ~ If this is a broad problem we may need to resolve it soon.
- ~ It's on today's agenda. Hope to resolve it or come up with a plan of action.

Question: Any more questions?

Answer: (Silence)

Thank you to Mitch. We will check back on all this occasionally to check progress.

~ There were minutes for the tech session. We should make those available. We discussed other topics too.

Some people will need github training.

II. Review status and continue discussion of active SCR work

Maybe we can vote on some of these today.

CCB-254 - Add Enumerated Value to Target Identification.type for Gravitational Waves See https://pds-jira.jpl.nasa.gov/browse/CCB-254

This one requests a new value for target type. Already has a TA.

Question: Are we ready for a vote?

Answer: The SCR was changed. Would prefer to add astrophysical instead of gravitational waves. Make gravitational waves the name.

~ The TA was done on the revised version. No liens.

Question: Any objections to voting?

Answer: To be clear the new stuff is in the SCR. EN is okay with it. There are changes to both type lists.

**The Vote on CCB-254 ATMOS - Yes IMG - Yes EN - Yes GEO - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

Rings - Yes

RS - Yes

SBN - No (Comment: Astrophysical is an adjective. It needs a noun.)**

The vote is nine to one.

This is an astrophysical type of target.

- ~ That didn't help.
- ~ They should all be adjectives.
- ~ We could vote on that. Target type is a phenomenon.
- ~ It's observable.
- ~ This is not worth worrying about.

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

This is a request to add a new unit of measure. At the tech session we realized that some units are fundamental, but there are also special cases and purposes. We need to decide if we want units of measure in LDD to be based on their local context.

Question: Confused. Are we voting on CCB-251 or on if allowed in LDDs?

Answer: CCB-251 doesn't have a TA. We're voting on if units are in the core or in discipline DDs, but only in specific circumstances.

- ~ Someone is confused by the constraints and how we will enforce them.
- ~ Someone agrees.
- ~ Not sure.

Some units are so widely used, like power, that it's better they be defined in the common DD, but new mathematical combinations could be in the discipline DDs.

- ~ This could confuse LDD authors into thinking they have to define all their own units. Hopefully, nodes would notice that, but it seems fair to leave the impact on the larger system.
- ~ We did discuss some of this at the tech session.

Question: Concerned over if there are constraints, who validates those constraints?

Answer: (Silence)

Question: Other comments?

Answer: Would like to see this in writing before voting. Confused.

- ~ Okay. See part 1 of the problem statement.
- ~ Concern over if the constraints are necessary and enforceable. If they are then we need to figure out how to validate. See part 1 of the SCR. There's an example in part 2 of the SCR. Not sure what else people want to see written.

If we allow units in LDDs, the CCB-251 gets withdrawn. If we define units of measure types in LDDs then EN would have to figure out implementation and DDWG would need to approve.

- ~ Someone is getting concerned about this. Different LDDs might define things in different ways.
- ~ That's fine.
- ~ Less concerned about that then if others also want to be able to use it and how they'll be able to do so.
- ~ We need to be very literal here we're not defining units as in the core. There are combinations of already existing definitions. We can validate units that are already defined in the core. The question is what we want to specify in an LDD
- SI units of measure or something like units of length divided by other units.

- ~ If we are going to use SI units, then that's a reasonable path. Otherwise, it's new concepts.
- ~ But xml schema can't automatically verify that. Would need to put in LDDtool. Probably don't have the level of control we want. Think the cleanest way to allow LDDs to define units not in the core is to have a new ingest file with permissible values and code it in LDDtool and propagate it to the LDDs.
- ~ Yes. Good overview. Permissible values of units are text strings that can be validated.

Question: That's mainly software work, right?

Answer: Yes. The only concern is regarding who is validating what's derived.

~ We can use a flag to say we are making an LDD. Maybe it can be done by the next build.

Someone is still confused. Not sure it's worth having this. We can have anything in a data table.

- ~ This could be useful if making derived products. Those units are not typically in the common DD. Making people wait for units to be added is very PDS3.
- ~ There are units that are only applicable in one place. It's worth the effort to have them.
- ~ Better not to clutter up the core.
- ~ Stronger validation. But one thing, xml schema, xml attributes are not typically labelled with a namespace, so not sure how this will work. Maybe we should make a mock up to make sure we understand how this will work.
- ~ That makes sense.
- ~ That should be done.

Question: Other people's opinions?

Answer: (Silence)

Another Question: Anyone else have reservations? Kinda thinking we need a tiger team to do some prototyping. Are

there any volunteers? Answer: Anne will help.

- ~ Steve likes the idea of a team since this is not a standard change to the IM.
- ~ Mitch will play too. Sees potential benefit. Need to figure out the cost and mechanics.

Someone is concerned about the validation. Will need to add some overhead. It's do-able, but will take some work.

The tiger team is Mitch, Steve and Anne. They will do some prototyping.

We will table this SCR for now.

~ We may need it for the next build, but it's on hold for now.

That chewed up a lot of time.

##CCB-249 - Schematron Rule Elements - Assert and Report See https://pds-jira.jpl.nasa.gov/browse/CCB-249

Question: This is the one about allowing schematron report - it's in the IM, not in LDDtool. Do we want this implemented for the next build? Are there comments? Can we vote?

Answer: A yes vote would be to implement report.

A Question for EN: Is EN in favor of this?

Answer: Yes, but it's two things that are equivalent. Different perspective, negative versus positive. No real objection, but it could be confusing.

**The Vote for CCB-249

ATMOS - Yes

IMG - No longer present

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Yes PPI - Yes Rings - Yes RS - Yes SBN - Yes**

Nine votes for - passes.

CCB-257 - Add Enumerated Value to Target Identification.type for Solar Corona See https://pds-jira.jpl.nasa.gov/browse/CCB-257

Question to author: Have you responded to Ron's email?

Answer: Yes. We will use plasma stream, which has solar wind. Think we can work with what is there. Ready to withdraw the SCR.

~ Just wanted to confirm that.

EN needs an official email.

Action Item - Dick will send official email to withdraw the SCR to Ron.

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types and provide 'multi-host' and 'no-host' options for instruments See https://pds-jira.jpl.nasa.gov/browse/CCB-244

Question: What do we need to do?

Answer: **Action Item - Lyle** will talk to Lynn about this.

This will be on the agenda for next time.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

This already passed. Need to set up a telecon for the stewards group. There is an IPDA meeting May 8 to 10.

Telecon could be next week - Tuesday or Thursday.

- ~ April 30 works for Dick and Joe.
- ~ Mark will check if that works for Sebastian. Lyle will also email Sebastian. **(Action Items)**

Next Telecon - May 9?

Question: Next telecon in two weeks? May 9? Answer: Mark is not sure because of IPDA meeting. ~ Steve will be in Paris.

We will try. Next meeting May 9.

DDWG Notes 2019-05-23

title: DDWG Notes 2019-05-23

layout: default date: 2019-05-23

May 23, 2019

Notes by Debra Kazden

Known Attendees: M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson Known Observers: D. Hollibaugh Baker

DDWG Agenda

(Included in email sent May 21, 2019, from E. Guinness, Agenda for DDWG telecon this Thursday, May 23)

My guess is that the deadline for requests for the next build will be around August 15.

Agenda

- I. Review of last minute model and LDDtool changes to support first InSight release Any further discussion or questions? The 1.11.1.0 version of the core model still needs to be posted.

 (Discussed)
- II. Review status and continue discussion of active SCR work.
- 1) CCB-251 Add units of Gmass. Tiger team will investigate how units of measure could be defined in LDD. Action from last meeting was for team members to review Anne's mockup. Any status update?
- 2) CCB-244 Deprecate 'earth-based' from Context Product Lynn to figure out a plan to address this request.
- 3) CCB-222 Add citation text. Any update or should this one be parked?
- 4) CCB-203 Constraints of local dictionary. Steve H. to close this one out.
- 5) CCB-202 Instrument type in Context Products this change has already been approved. Draft process document being reviewed. Deadline is June 4.
- **(Discussed)**
- III. New change requests Are any of these ready to work?
- 1) CCB-256 Need method to provide permissible value definitions in Ingest LDD. Requested by Anne. Steve, Mitch, and Ed to be on working group with Anne.
- 2) CCB-255 Namespace version dependencies are not documented in the Information Model. Requested by Anne. Steve and Mitch to be on working group with Anne.
- 3) CCB-253 Add Units of Force as a unit of measure. Request by Imaging to support surface science. Action from last meeting was for team members to review JIRA updates.
- 4) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group. Tanya to discuss with others at PSA whether to withdraw this request.
- **(Discussed)**
- IV. Parked until May timeframe Are any of these ready to work?

- 1) CCB-220 Specify many source products in a table. Still interest in this request. Mitch and Ed on tiger team. Report on telecon from Wednesday.
- 2) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address after the upcoming build.

(Brief Discussion)

V. Status tech session action items – Action items posted to JIRA with tags of PDSF2F. Jordan and Emily will track progress.

(Discussed)

VI. Other topics?

(None)

VII. Set next telecon date - Will June 6 work?

(June 6)

DDWG Telecon

We might not have anyone from IMG or NAIF today.

I. Review of last minute model and LDDtool changes to support first InSight release

This is a continuation from our discussion last time. It's about changes made to support the InSight release.

Question: Are there any questions or concerns about this? Version 1.B.1.0 is still not posted.

Answer: It's available in the release directory. You can link to it by URL. The decision was made not to put a link to it because it's more of an internal release to get InSight out the door.

- ~ If we are going to have products we will need it.
- ~ It's available, just not advertised.
- ~ Someone agrees we need it. It's not a secret version. Sees no reason not to post it.
- ~ Someone sees a problem with giving it to a mission to use, but not letting everyone see it.

The decision needs to be revisited.

Action Item - Steve will tell the folks at EN that the DDWG wants this fully released.

If it's not available to the general public it's not released.

~ It's in the release directory, just not advertised now. Maybe we need to release it and document that it was done to support a mission as a stop-gap.

Someone thinks that's all fine, but is concerned about the validator. Wants to know if there is a point build for this - to validate 1.B.1.0.

- ~ Validate version 1.12 will work.
- ~ The 1.15 version works for 1.B.1.0 or 1.C, which isn't out yet. Guessing the changes in 1.B.1.0 will be propagated to 1.C.0.0.
- ~ This is the first time we have implemented this since over a year ago. We added a restriction for data type. It's validated by xml schema. It's great, but InSight was the first to test it and we got an error.

Question: Anything else?

Answer: **Action Item** is for Steve to try to get this posted.

II. Review status and continue discussion of active SCR work

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

This SCR has become a place holder for the discussion about having units of measure defined in LDDs. A mockup of how that might work was posted before the last meeting. Not sure anyone has looked at it.

- ~ Someone looked, but doesn't understand it. Hopes it works.
- ~ This is really an issue of the need and if we're capturing the information in the right way.
- ~ We can do it. The question is if we should.

Someone wants to know if they can use something defined in another namespace in their LDD.

~ Have to make things explicit that they are based on units defined in the core.

RS units are numbers in data tables, not in labels. RS wouldn't need this.

~ No problem defining this with an SCR tied to common. That's how we originally set this up. All fundamental units were going to be defined in the core. Specialized units could be defined in LDDs. This will matter for CCB-251.

Not sure what the path forward is. We could separate these. The CCB-251 question is if GMASS is of general use or just for Rings.

Someone is against this. Units should be in common. Worried different LDDs will define units different.

~ PPI mostly has units in tables, but might have changes in usage as we get more model stuff.

Question: Should we continue with the current way and should CCB-251 be changed?

Answer: The goal of having units in the core was to enforce constraints on units for search. If we want that constraint, regardless of the search, it's a good reason for a central place to have units defined.

- ~ Someone agrees. If something is being used for search we want to be able to convert it a good argument, but it also seems that there are parameters we might want that aren't for search maybe for processing with limited definitions and purposes. Getting everything into the core might be onerous. Not sure how we would handle it.
- ~ The solution that was mocked up pulls on the strengths of xml so it's implementation dependent. Uncomfortable with that.
- ~ In someone's head units of measure and data types are at a low level everything else rests on them, but if that's not true, wants to know what the implications are for the IM.
- ~ LDDs are part of the IM, so for implementation there's no issue. We decided on xml schema. We could change that to something like JSON, no issue.

To move this along, everyone should think about this issue of specialized units in LDDs for next time. **(Action Item)** Hopefully, we will have a consensus for next time, and then we'll know what to do with CCB-251.

An alternative thought - someone prefers that units are only defined in one place, but if there are lots of special units, maybe we want a unit LDD - similar to the instrument type stuff - just get it out of the core and into a separate dictionary.

- ~ A special steward team would be needed. The instrument type one is dragging on holding up migration work.
- ~ Someone is deeply concerned about that.

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types See https://pds-jira.jpl.nasa.gov/browse/CCB-244

The SCR has been edited. Moved a lot to context document. The SCR has been reduced down to just deprecating earth based.

Question: What about context products currently using earth based?

Answer: There aren't any.

~ RS has some in the works.

- ~ Don't use earth based if they are in the works.
- ~ Someone is surprised.
- **Action Item Everyone** should look at the edited SCR and comment on it in jira.
- **Action Item Dick** will work with Lynn to see how stuff will work without earth based.

It would be nice to decide this one before the next build.

~ RS needs this for Cassini.

Question: Where is the Context Best Practices document posted?

Answer: Unsure.

- ~ It should be on the PDS4 website.
- ~ We should circulate it again with the changes.
- **Action Item ATMOS** will circulate the document next week.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

Discussions show we aren't just adding a new field.

No update for this. Team leader did receive materials from Anne and Steve - not reviewed yet.

The team will have a telecon.

This will be left on the agenda for now.

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes See https://pds-jira.jpl.nasa.gov/browse/CCB-203

Changes to LDDtool.

Question: Is there a plan to close this one out?

Answer: Yes. Action item was for Steve to work on this. He sent email to Jordan. Jordan said he's okay leaving it where it is. Ron pointed out that the impact statement says it's a software issue - so it can be closed. No reason to keep this open.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

Team will have a telecon in early June. Working on it. No updates.

Question: Any comments?

Answer: (Silence)

III. New change requests

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD and CCB-255 - Namespace version dependencies are not documented in the Information Model
See https://pds-jira.jpl.nasa.gov/browse/CCB-256 and https://pds-jira.jpl.nasa.gov/browse/CCB-255

Question: Did the team have time to do anything yet?

Answer: Yes and no. For CCB-255 - a class was mocked up to act as a straw-man for discussion. It would go in the identification area. Need the team to review it. It can be discussed at the next DDWG. Not complicated.

~ **Action Item - Steve and Mitch** review the mocked up class for CCB-255

Nothing has been done on CCB-256 yet. Team needs an idea session on this. Maybe a half hour. Maybe Thursday of next week - May 30.

~ One team member does have some thoughts on this - will toss them out.

We also need a deep talk about Rosetta issues that are coming up - overlaps with these SCRs. Maybe we can do an hour on May 30 on these.

Action Item - Anne will send the team a meeting reminder and arrange for WebEx.

CCB-253 - Add Units of Force as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-253

The SCR is being worked on. Had a few typos.

Someone is thinking we should add the dyne unit.

- ~ Newton is preferred. Not sure planetary people would use it. Maybe.
- ~ Seems like even if it's not used a lot it's easier to add it now.
- ~ But if we're trying to get people to use standard units...
- ~ We do have S.I. units. Many different unit values.

If you want to discourage people from using dynes, don't include it. If it's okay, better to include it from the beginning.

~ Not sure. Not feeling strong one way or another.

We will ask the team to fix the typos, and for Steve to do a TA and then we'll vote. **(Action Items - Christine and Steve)**

CCB-252 - Add "Not Applicable" to wavelength range in Science Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

This is from PSA. They were going to discuss withdrawing it.

~ They had the discussion - will withdraw it - haven't yet.

One of our self imposed design decisions was to have things optional instead of nillable, but that might get in the way sometimes. It might make sense to include nil for wavelength range. People could request nillable for for their own schemas.

- ~ PSA has a GUI, it has wavelength, so every product in the database has wavelength. Wanted to have it nillable because it's hard to tell if it's nil or not filled in. Can work around it.
- ~ Would need to say why something is nil. Would need specific attributes to know if it's really nil.
- ~ The difficulty is if it's not there because a DP forgot to fill it in or because it's N/A.

Question: Does someone have a solution for this?

Answer: Yes, but maybe not a solution PSA will want. What was asked for was a keyword of N/A. We don't do that in PDS4, but we do have a way in xml to say it's nil and why. So, it's an empty keyword, but it has the attribute of being nil.

- ~ But it can be done.
- ~ Yes, but may change the logic of the code.

Question: Can you send a sample?

Answer: We would need to change the SCR to make wavelength range nillable - same way start time is nillable, not have N/A as a value.

- ~ It's something PSA's users like to have. This is why we require the use of the facet class and want wavelength.
- **Action Item Anne** will send Tanya an example and will update the SCR for Tanya.
- # IV. Parked until May timeframe

CCB-220- Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

The team has a telecon next week.

Tanya wants to join the team. This is of huge interest to IPDA.

~ Ed will tell Christina. **(Action Item)**

CCB-209 - Correct Definitions of Tagged * Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

Steve hasn't had a chance to work on this yet.

V. Status of tech session action items

At the MC, asked about the F2F tickets in jira. Action items from the tech session. Jordan and Emily will track progress.

Question: Can we get a time line? I thought EN was going to modify LDDtool - to change ingest file and add another product class. Are there milestones? There will be more SCRs to put in.

Answer: No time line.

 $^{\sim}$ Someone wants to see what the proposed time line is.

The current release seems to be taking a long time.

~ It's in integration and testing now. Not sure it's taking longer.

~ We're pushing this for the next build - don't want to scramble at the end.

Regarding changes to LDDtool - Steve will be working on that.

VII. Set next telecon date

Question: Is June 6 okay for next time?

Answer: Okay.

DDWG Notes 2019-06-06

title: DDWG Notes 2019-06-06

layout: default date: 2019-06-06

June 6, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson Known Observers: D. Hollibaugh Baker

DDWG Agenda

(Included in email sent June 4, from E. Guinness, Agenda for DDWG telecon, June 6)

- I. Review status and continue discussion of active SCR work.
- 1) CCB-256 Need method to provide permissible value definitions in Ingest LDD. Anne distributed a prototype to working group.
- 2) CCB-255 Namespace version dependencies are not documented in the Information Model. Steve and Mitch to be on working group with Anne.
- 3) CCB-253 Add Units of Force as a unit of measure. SCR has been edited based on comment in JIRA. TA complete. Ready for vote?
- 4) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group. Anne posted a comment to JIRA on a proposed solution for this.
- 5) CCB-251 Add units of Gmass. My suggestion is that we should treat this request on its own and table the secondary issue of defining units of measure in LDDs.
- 6) CCB-244 Deprecate 'earth-based' from Context Product SCR has been edited. Lyle distributed new version of Context document.
- 7) CCB-222 Add citation text. Any update or should this one be parked?
- 8) CCB-220 Specify many source products in a table. Cristina, Mitch, Tanya and Ed are on tiger team. Had telecon to brainstorm solution.
- 9) CCB-203 Constraints of local dictionary. Waiting on EN to close this one.
- 10) CCB-202 Instrument type in Context Products this change has already been approved. Draft process document being reviewed. Deadline is June 4.
- **(Discussed Voted to pass CCBs 253, 251 and 244 to the CCB)**
- II. New change requests
- 1) CCB-258 Use of nilReason with xsi:nil should be required.
- **(Discussed)**
- III. Parked until May time frame Are any of these ready to work?

1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address after the upcoming build.

(Brief Mention)

IV. Other topics?

(None)

V. Set next telecon date – Will June 27 work? I and probably many DDWG members will be on travel June 20 (Planetary Data Workshop).

(June 27)

DDWG Telecon

We hope to close out some SCRs today or soon. There are a few new ones. We're making progress.

The freeze date for the next build is August 16. We'll need to get stuff to the CCB a week earlier at least.

I. Review status and continue discussion of active SCR work.

There are ten items we've been talking about for the last few meetings.

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-256

This is in response to changes in LDDs. A prototype was worked up.

- ~ Someone thought it was uploaded to jira, but only the tiger team has seen it so far.
- ~ Forgot to have a telecon.
- ~ It will be uploaded in jira and it can be discussed next time.

Action Items - Anne upload the prototype to jira for **Everyone** to look at and comment on. We especially need to hear from **Steve** on this.

This isn't a change to LDDtool, believe it was an enhancement.

- ~ Someone thinks this was in response to something implemented in CCB-203.
- ~ Someone else thinks it was something from the standard that wasn't validated or enforced.
- ~ Steve will make looking at this a priority.

The use case - reference type - that turned up the problem is trivial, but we're moving into more complicated stuff. Would be a way for DD writer to use permissible values for attributes that come from another namespace.

Just for general information - Steve has been working on cleaning up the IM and LDD code over the last year. Trying to make the final changes, and will put out a new version. Will turn on the new LDD path soon. Will also work on DDWG high priorities.

CCB-255 - Namespace version dependencies are not documented in the Information Model. See https://pds-jira.jpl.nasa.gov/browse/CCB-255

Question: Has there been any progress on this one?

Answer: No comments on the draft solution from the tiger team yet. Will upload to jira so people can look at it.

(Action Item - Anne)

CCB-253 - Add Units of Force as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-253

The typos in the SCR have been corrected and the TA is done. No liens.

Question: Are we ready to vote? Anyone not ready to vote?

Answered with Another Question: On what?

Answer: Units of force being added to the common model.

**The Vote on CCB-253

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Not Here

PPI - Yes

Rings - Yes

RS - Yes

SBN - Yes**

9 to 0 - one not voting. Ed will send this to the CCB. **(Action Item)**

CCB-252 - Add "Not Applicable" to wavelength range in Science Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

There might be a need for specific attributes to be nulled. An example has been put on jira.

The folks at IPDA have looked and like what they see. Would be very happy if implemented as in jira. Mark is very happy.

Question: Has anyone else looked?

Answer: Yes. Solution looks good. We can withdraw the SCR and... (interrupted) Another Question: Do we need a new

SCR?

Answer: The Requested Changes need editing to reflect what we want to do.

Question to Steve: Is Steve okay with this going forward?

Steve: Is this required? Thought it was optional.

- ~ For us it was optional, so not nillable. This helps our international partner archives, so required things can be nillable.
- ~ This is one where I expect that implementation will ferret out the issues. Open to testing, but not expecting any issues.
- ~ The Requested Changes need to be edited, then Steve can look in more detail during the TA. If there are no big issues we can do a vote.

Question: Is this a priority for this build? Answer: IPDA would like it for this build.

Question: Who will edit the Requested Changes?

Answer: Tanya will get Mark to do it. **(Action Item - Tanya)** ~ It needs to say specifically what the changes will be.

It will be worked on early next week.

CCB-251 - Add Units of Gmass as a unit of measure See https://pds-jira.jpl.nasa.gov/browse/CCB-251

We have been discussing if we should allow units in LDDs as part of this. No agreement. Think we shouldn't tie up this SCR with that issue. The SCR has been edited as-is and a TA has been done.

Question: Do people want to vote? Are they ready to vote?

Answer: There was a question about the units in item 3, not item 1.

- ~ Meters cubed per seconds squared was added. Thought RS wanted it.
- ~ Not sure anyone would need it.
- ~ Thought it was necessary for radio science.
- ~ Nope. Comment was to get rid of the days.
- ~ Did that. No harm leaving specified units there.

Question: Anyone not ready to vote?

Answer: (Silence)
~ NAIF still isn't here

**The Vote on CCB-251

ATMOS - Yes IMG - Yes EN - Yes GEO - Yes

IPDA - Yes

PPI - Yes

Rings - Yes

RS - Yes

SBN - Yes**

Good. Same vote tally. This goes to the CCB.

CCB-244 - Deprecate 'earth-based' from Context Product Instrument Host types See https://pds-jira.jpl.nasa.gov/browse/CCB-244

The context document was sent out. Not sure what we have to do to finish this one.

- ~ We should vote.
- ~ Someone didn't have time to go through the entire document.
- ~ Unnecessary.

Question for Dick: RS had concerns. Did you get a chance to talk to Lynn?

Answer: No, but looked. Decided there are alternatives that can be used. Okay with this.

Question: Do nodes that might be affected by this have comments?

- ~ SBN: Haven't read the document yet, but happy to let it go. Will file a new SCR if necessary.
- ~ Rings: No problems with this SCR.
- ~ PPI: A little concerned. Haven't needed it before, but we do have a bunch of new data we are getting ready to archive. Just not sure. Not ready to make an intelligent decision yet. Okay with taking SBN's approach of writing a new SCR if we find a problem.

There are no liens in the TA.

Question: Are we ready to vote? Anyone unwilling?

Answer: To address PPI, RS would use facility or observatory.

- ~ Observatory is probably okay for PPI too.
- ~ We'll vote.

**The Vote for CCB-244

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Abstain

IPDA - Yes NAIF - Not Here PPI - Abstain Rings - Yes RS - Yes SBN - Yes**

Okay, we have 7 yes, 0 no, 2 abstain and 1 not voting. Goes to the CCB. This is great. Good progress today.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

Not much progress yet. Maybe this should go on the back burner for now.

~ It's an important issue. Need to have enough metadata for DOIs. Doesn't prevent DOIs. Team hasn't had time to work on it.

We can keep it on the agenda or we could wait and the team leader can let us know when ready to discuss it again. ~ Fine.

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

There has been some work on this. The team met. Team was going to review the notes and then bring it to us. ~ Team leader will write it up before our next telecon **(Action Item - Christina)**

Contact Christina if you have any ideas for this **(Action Item - Everyone)**

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes See https://pds-jira.ipl.nasa.gov/browse/CCB-203

The issue here is the process for closing this. We don't want to see it anymore.

Steve talked with Jordan. It's been marked in jira. Software people consider this closed. Think it's been fixed in jira. Impact statement says it's PDS tools.

~ Someone doesn't see that.

Question: Can Ron and Steve take care of this? **(Action Item)**

Answer: Definitely.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

LDD for instrument type context products. There's still concerns on progress on this. There's a telecon next week. A draft document will be sent to the team for the meeting from Lyle. **(Action Item)** ~ People were concerned about deadlines. Not close to done. Just getting started.

~ We will track progress.

II. New change requests

There are two new SCRs as a result of the wavelength range issue.

CCB-258 - Use of nilReason with xsi:nil should be required and validated and CCB-259 - Need a "Null Result" option for Product Observational See https://pds-jira.jpl.nasa.gov/browse/CCB-258 and https:/

CCB-258 is straightforward. Discovered nilReason needs a schematron rule cause it's not required to be present. It's a schematron/software change. Could maybe go in another queue. Think it's pretty straightforward. Not urgent - no need to rush it for the next build.

CCB-259 came up this morning because we can't represent a null result. SBN has a lot of null results. Problem is that you need a product observational for an empty product - needs to be able to say it's a null result. Need this for the next build for Rosetta.

We had an indicator in the label that something has null results - probably need something in the primary results section too. There are null results in the PDS3 archive.

- ~ Several. We need a way to represent them.
- ~ RS has issues too when looking for gravitational waves.

There's no need to continue discussing this now. We can discuss it in two weeks at the Planetary Data Workshop.

For CCB-258, not sure what we should do. Everyone should look at the SCR **(Action Item - Everyone**) Maybe we can also discuss this at the Planetary Data Workshop.

- ~ Think we can ask the CCB if they think this is a bug fix, or maybe Jordan might want to move it to the software queue.
- ~ It doesn't seem like a bug fix. It requires new code.

III. Parked until May timeframe

CCB-209 - Correct Definitions of Tagged * Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

This is an under the hood issue. We will leave it on the list for now.

V. Set next telecon date

June is pretty packed. Ed will be on travel and there's the Planetary Data Workshop. We probably won't be able to meet until June 27.

Question: Does June 27 work for people?

Answer: Yes.

~ Okay, next meeting June 27. If anyone wants to use this time slot for team meetings for tiger teams that is fine.

Question: Anything else?

Answer: (Silence)

DDWG Notes 2019-06-27

title: DDWG Notes 2019-06-27

layout: default date: 2019-06-27

June 27, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, A. Raugh, B. Semenov and R. Simpson Known Observers: D. Hollibaugh Baker

DDWG Agenda

(Included in email sent June 25, from E. Guinness, DDWG agenda for June 27)

- I. Review status and continue discussion of active SCR work.
- 1)* CCB-258 Use of nilReason with xsi:nil should be required.
- 2) CCB-256 Need method to provide permissible value definitions in Ingest LDD. A prototype/strawperson solution is included on JIRA.
- 3) CCB-255 Namespace version dependencies are not documented in the Information Model. Anne, Steve and Mitch are on working group. Mock-up of a possible solution is included in a JIRA comment.
- 4)* CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group. A requested changes section has been added to JIRA.
- 5) CCB-220 Specify many source products in a table. Cristina, Mitch, Tanya and Ed are on working group. Cristina to distribute a possible solution to the working group.
- 6) CCB-203 Constraints of local dictionary. Why is this still open? Waiting on EN to close this one.
- 7) CCB-202 Instrument type in Context Products this change has already been approved. Need status update on implementation.

The starred items are ones that I think we can finish for the next build. There may be others nearly ready or urgent to get included.

- **(Discussed)**
- II. New change requests
- 1) CCB-261 Method to indicate a product is part of a collection with a DOI.
- 2) CCB-260 PDS4 labels do not have a unique file extension.
- 3) CCB-259 Need a null result option for Product Observation.
- **(Brief Discussion)**
- III. Parked until Steve has time to review

- 1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address after the upcoming build.
- **(Brief Discussion)**
- IV. Other topics?
- **(Yes. Brief Discussion)**
- V. Set next telecon date Possible meetings: July 11 (time conflict with Mars 2020 DAWG), July 18, August 1, August 8. I'm on travel for July 25.
- **(Next meeting is July 11)**
- # DDWG Telecon

No one from ATMOS is on the call today.

The official date for the freeze for the next build is August 16 - a month and a half away. We have passed seven items to the CCB so far.

- ~ 1.12.0.0 or 1.C.0.0 is out. New software versions too.
- # I. Review status and continue discussion of active SCR work

Status of the CCBs we've been discussing. Noted in the agenda things we can maybe pass in time. If anything is urgent we need to work on it.

CCB-258 - Use of nilReason with xsi:nil should be required and validated See https://pds-jira.jpl.nasa.gov/browse/CCB-258

This one came from another CCB. A zip file has been posted to jira.

~ The zip file contains a mock up of what it might look like. Shows the validation.

Question: Not sure what we would need to do to adopt this. Schematron rule? Attributes? Does EN have any idea how this would be implemented?

Answer: Steve looked at. Reasonable. Just adds a new set of terms for better validation.

- ~ Would have to propagate to anything we have that is nillable.
- ~ If the question is if the xml label would look different... (Unfinished thought?)

There are two issues - if we want to adopt this and if so, if there are any roadblocks.

- ~ We would have to update the software in one place and LDD.
- ~ Someone likes this, but thinks we will need to update the LDDs. Need to make sure people are using this correctly.
- ~ When the xml schematron is generated, no idea if people used it. Need to validate for it.
- ~ If I'm Joe-bag-of-doughnuts, I need to know if something is nillable and the acceptable reasons it could be nillable. It needs to be in the schematron rules. We have to decide the acceptable reasons and when things can be nil. We probably have a lot of attributes that are nil without a reason.
- ~ Someone thought there was a standard set of nil reasons.
- ~ There are.
- ~ Didn't think we were proposing to come up with new reasons thought we would use the standard set.
- ~ That eases the problem a bit. We just need a generic schematron rule.
- ~ That's the question if a generic schematron rule can be written.
- ~ We need to figure out a way to do the check.
- ~ This might be a software change not sure.

The example uses the context of nil attribute to assert in that context. Unsure if we can write a generic rule for every context. Don't want to short circuit the tests. Maybe we can do it in schema, but not in our implementation now. Can see if we can do it in xml schema, if we want this done then we do need to look at the best way to validate.

~ Standard values include anticipated, missing, N/A...

The questions are still how this would be implemented and if it's worth doing.

Question: Does anyone have a strong opinion that we shouldn't do this? I think it makes sense. I always use nilreason - didn't know I didn't have to.

Answer: That's why we have this SCR. It's not required. Seems like a no-brainer that you should put a reason.

~ Think it was an oversight.

Didn't hear anyone say we shouldn't do this. The next step is to figure out how we'll do it. We need volunteers to look at how to do it.

Question: Anne?

Answer from Anne: (Laughter) Fine. Will look into it. Steve will help. Anne will mock up some potential approaches.

- ~ Ron will help.
- **(Action Item Anne, Steve and Ron)**

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-256

There has been some work done on this. This has to do with the decision to include at least one ref type if using something in the common DD.

Question: There's a strawman. Has anyone looked at it yet?

Answer: person who posted it hasn't heard from anyone yet. Not sure what to do.

- ~ Someone hasn't had time yet, will try in the next two weeks.
- ~ Someone else too.

The tiger team is Steve, Ed, Mitch and Anne. Everyone should take a look and get comments to Anne. Maybe she can send an email reminder. (**Action Items - Everyone** should look at this is jira - and **Anne** will remind them to do so).

##CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

The mock up for this one is in a comment on jira. The tiger team is Anne, Steve and Mitch. Looked at the mock up seems kind of okay, but there's a lot of stuff to include. InSight has around eight LDDs to include. Seems like it will clutter up the labels.

- ~ Yeah, but it's all needed to have the namespace. Need URI and namespace version. The rest is redundant. Title is there for reference. Comments are always optional. It's one of those things where you can put more.
- ~ Someone agrees those two should be required. Maybe there's some confusion in the wording. That's someone's take. It's workable if only those two are required. Not sure what the team thinks.
- ~ This is along the lines of what I was trying to do. Was trying to put in the schema. This puts it in the label itself, which is fine. I would like the list in the schema.
- ~ Right now the only link is in the schema location.
- ~ Bingo.
- ~ This is trying to make it explicit.

Question: Jira makes it sound like the problem is that you can't know from the IM version what LDD version goes, but I don't think that's what we are discussing, right?

Answer: I think you are misreading.

~ I might want to use a mixture of versions - putting even more in a label to change every time an LDD changes is a lot of work for a data provider.

~ The problem is not canonical and not validated or validatable. The tool needs to take everything and turn it into the xml model statement - processing instructions. Schema location can't be validated - we have no way to validate it's correct, but if we put it in the identification area we can validate.

This was discussed years ago at SETI. It was one of the issues we identified and it just sat there. In the interest of time, suggest that people look at the mock up and add comments in jira. **(Action Item-Everyone)**

The mock up is a stopgap solution until the entire IM is built as a whole. At that time the necessary number of references drops.

~ Maybe at 2.0

Christina wants to join the team. Doesn't agree with this, so would like to be part of the discussion.

Action Item - Christina will put her comments in jira.

CCB-252 - Add "Not Applicable" to wavelength range in Science Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

This was from IPDA. We decided to make this optional and nillable. Mark fixed the Requested Changes. There is a TA.

Question: Do we need more discussion? Anybody?

Answer: Didn't know there was a TA. Would like to hear a summery.

~ Will read aloud what's in jira - very simple.

(Jira says: "The request is to make the attribute Science Facets.wavelength range nillable. This change allows a mission/project to enforce the inclusion of a value for Science Facets.wavelength range at the local governance level, even when no value is applicable. This change request is reasonable.") ~ Okay.

Question for Anne: You put in a comment that is from before this was nillable...?

Answer: Yes. Nillable was my idea.

Question: Do people want to vote or to review it again?

Answer: Someone would like to read it now that there's a TA.

We will vote on this next time. Please review it. **(Action Item - Everyone)**

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

This hasn't been worked on yet. The team will meet.

~ SBN had to do this for BOPPS, so if the team needs a test product let them know and they can apply it to one of those delivered products.

CCB-203 - Define and enforce constraints on local dictionaries to avoid confusion with key pds: namespace attributes See https://pds-jira.jpl.nasa.gov/browse/CCB-203

Question: Why isn't this closed?

Answer: We need a wooden stake. Talked to everyone about getting this resolved. My understanding is Jordan wants to be able to find this in the PDS tools. Ron says it's there.

~ It was implemented.

~ Limbo between software and CCB. This should be closed.

~ Whoever runs jira needs to do it.

Question: Who can do it? Who has the authority? Ed?

Answer: Sure.

- ~ Send Ron an email. Ron will close it.
- **Action Item Ed** will send Ron email, and **Ron** will close the SCR.

Everyone agrees this should be done. We just need a way to do it.

- ~ Copy Steve Joy on the email.
- ~ Ed will send the email today.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

There is a draft document. People seem happy. The team came up with guidelines. That's the can of worms that led to the CCB in the first place. The next tiger team meeting is July 17. Concerned that it won't be ready for the next IM. Necessary for RS. Trying to press it along. CCB said we need a process document and list. Joe is on the work group. Maybe he also has comments.

The team will keep working on it and we will check on it next time.

II. New change requests

CCB-262 - Add Support as an enumerated value to Primary Result Summary.purpose See https://pds-jira.jpl.nasa.gov/browse/CCB-262

This is asking for an enumerated value for PRS purpose. In Cassini, the team put "support", but the values don't include that. It's a simple request - hoping to vote next meeting.

Someone's main concern is that "support" isn't particularly helpful in a facet list. Wonders if there is a better word to use. Support is so vague.

We don't have time to discuss this in detail. Put comments in jira **(Action Item - Everyone)** We can discuss this next time. We can probably wrap this up quickly once we have consensus.

CCB-261 - Add an optional method for indicating that a product is a member of a larger collection that has a DOI, CCB-260 - PDS4 label files do not have a unique file extension, and CCB-259 - Need a "Null Result" option for Product Observational See https://pds-jira.jpl.nasa.gov/browse/CCB-260 and https://pds-jira.jpl.nasa.gov/browse/CCB-259

These three mostly need some thought. Just need a discussion.

Someone is not sure they understand CCB-261.

~ Would be handy to have the DOI in the product labels to link back to the collection, but worried about versions. DOI in product label might have a version that really didn't change but might need a new DOI and need to be re-versioned because of a new DOI - even though probably nothing else changed. Not convinced this is a good idea.

CCB-260 probably is a good idea.

- ~ This has been discussed with Jordan. Some long term planning for this.
- ~ We need to consider the impact on DPs. This would solve the problem of allowing xml data files in.

CCB-259 is something to think about.

- ~ A zero length file in not an option. There are other things that can be done.
- ~ Not likely to get into this build.
- ~ More of a migration issue.

III. Parked until Steve has time to review

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

Question: Are we now waiting for 1.13?

Answer: Steve has been spending time on conversion of software, but will try to get on this for this build.

- ~ It has a huge amount of detail.
- ~ Steve will get started might not be ready for next build.

IV. Other topics?

There has been email on possible other topics between SBN, EN, PSA and Rings. There is a list of things to resolve, but two to bring up now: use of mission in LDD namespaces - want to make it optional, there's no requirement, but there are examples in the SR and DPH - inconsistent. For software changes we don't think it affects things. Change would be backwards compatible. From software perspective it can be made to work. It's something to consider.

CCB-90 (Add "Line-Feed" as a permissible value for record delimiter in Stream Text, Table Character, and Table Delimited - see https://pds-jira.jpl.nasa.gov/browse/CCB-90) passed and the MC overruled it. We might want to take a look at it.

Question: Do we need SCRs?

Answer: We won't do anything without them.

V. Set next telecon date

Next Thursday is a holiday. The next Thursday after that is July 11, but there's also a Mars2020 meeting and several people here attend both. We could start later.

~ That's not good for everyone. Can try, but not everyone's preferred choice.

Ed will try to learn how long the Mars2020 meeting will last. **(Action Item - Ed)** ~ Our meeting time will be in the agenda when it comes out.

IPDA is concerned about pushing our meeting too much - it gets late there.

~ Maybe we could meet a half hour later.

Ed is on travel July 25. Suggests we meet weekly.

Question: Any last comments?

Answer: (Silence)

DDWG Notes 2019-07-11

title: DDWG Notes 2019-07-11

layout: default date: 2019-07-11

July 11, 2019

Notes by Debra Kazden

- **Version 2 July 15, 2019
- ~ These Version 2 notes include one correction.

In the CCB-256 discussion:

Original Notes say:

"**Action Item - Anne** will work up a prototype implementation."

Changed to: "**Action Item - Anne and Steve** will work up a prototype implementation."

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson Known Observers: D. Hollibaugh Baker and A. Waldron

DDWG Agenda

(Included in email sent July 9, from E. Guinness, DDWG agenda, July 11. Note the changed start time this week only)

- I. Review status and continue discussion of active SCR work.
- 1*) CCB-262 Add "Context" as value for Primary Result Summary.purpose. Needs a TA. Ready to vote?
- 2) CCB-261 Method to indicate a product is part of a collection with a DOI.
- 3) CCB-260 PDS4 labels do not have a unique file extension.
- 4) CCB-259 Need a null result option for Product Observation.
- 5*) CCB-258 Use of nilReason with xsi:nil should be required. Anne to explore possible solutions.
- 6) CCB-256 Need method to provide permissible value definitions in Ingest LDD. A prototype/strawperson solution is included on JIRA. Comments on prototype?
- 7) CCB-255 Namespace version dependencies are not documented in the Information Model. Anne, Steve and Mitch are on working group. Possible solution is included in a JIRA comment. Comments on prototype?
- 8*) CCB-252 Add "N/A" to wavelength range in Science Facets. Request from PSA group. A requested changes section has been added to JIRA. Ready to vote?
- 9) CCB-220 Specify many source products in a table. Cristina, Mitch, Tanya and Ed are on working group. Cristina to distribute possible solutions.
- 10) CCB-202 Instrument type in Context Products this change has already been approved. Need status update on implementation.

The starred items are ones that I think we can finish for the next build. There may be others nearly ready or urgent to get included.

- **(Discussed, Voted to Pass CCB-252 to the CCB)**
- II. New change requests
- 1) CCB-264 Make Line Feed an allowed record delimiter.
- 2) CCB-263 Clarify the use of "mission" in mission LDD.
- **(Discussed)**
- III. Parked until Steve has time to review
- 1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address as soon as he can.
- **(Not Discussed)**
- IV. Other topics?
- **(No)**
- V. Set next telecon date July 18, August 1, and August 8. I'm on travel for July 25.
- **(July 18)**
- # DDWG Telecon

We have ten items on the agenda plus a few new SCRs. We will try to run through status.

I. Review status and continue discussion of active SCR work

CCB-262 - Add "Context" as an enumerated value to Primary Result Summary.purpose See https://pds-jira.jpl.nasa.gov/browse/CCB-262

We discussed this last time. Some changes have been made to the SCR based on the comments last time.

- ~ Changed "support" to "context", but there was a comment in jira that there's some potential for confusion since we have context products. Not sure what else to do. There are limits on the English language.
- ~ Someone agrees with the comment. There is a potential for a real problem. Don't have a new suggestion for a different word, but we could use a two or three word value.
- ~ The reporter is open to suggestion. It could be left for a week in hopes that someone makes a suggestion that everyone can support.

Question: How strongly are we concerned about the potential for confusion? Are there any suggestions? Maybe context support?

Answer: No ideas yet, but worried that if we call something a context image that might make people think it's a context product.

Action Item - Everyone - Try to think of alternatives - put them and comments into jira.

It is context. Two words is fine, but it makes sense to say something is a context image.

- ~ It will be confusing to users to see context as a product type and as a facet.
- ~ Context is a super class, then there are other types of context.
- ~ Users will see the word context in two lists and it will cause confusion.

CCB-261 - Add an optional method for indicating that a product is a member of a larger collection that has a DOI, CCB-260 - PDS4 label files do not have a unique file extension, and CCB-259 - Need a "Null Result" option for Product Observational

See https://pds-jira.jpl.nasa.gov/browse/CCB-260 and https://pds-jira.jpl.nasa.gov/browse/CCB-260 and https://pds-jira.jpl.nasa.gov/browse/CCB-26

These haven't been worked on. Reporter hasn't had time to go over the new comments in jira on these yet.

(CCB-260 had some additional discussion late in the telecon - that discussion is added here)

Someone put a comment in jira for CCB-260. Thought lblx was a good suggestion and wondered why no one else suggested it. Wonders if there are any issues with it.

- ~ Someone else liked pdsx since it's us, but Jordan thought it should be pds4x. Lblx is okay unless users are going to think it's a PDS3 label with xml in it. No real strong feeling.
- ~ There wasn't much discussion on this yet.
- ~ It's in jira people can read it.

CCB-258 - Use of nilReason with xsi:nil should be required and validated See https://pds-jira.jpl.nasa.gov/browse/CCB-258

Reporter hasn't has a chance to work on this one yet.

##CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-256

There have been some comments added in jira.

- ~ Two possible solutions were outlined. Someone liked the first one. Thinks we should do a prototype. It makes sense.
- ~ Can try to do it with the spectral LDD since have to work on that anyway. Also prefers the first one. It's cleaner and more intuitive for filling out the ingest LDD.
- ~ Someone agrees. The second one isn't intuitive.
- **Action Item Anne and Steve** will work up a prototype implementation.

This will be schematron rules - just need to specify the values.

##CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

There were comments in jira on this. There's been a back and forth between two people. It's still going on.

- ~ One of them isn't sure they are talking about the same thing.
- ~ Other one believes they are.

The IM model version doesn't determine other namespace versions and it can't all be validated. Not getting recorded in our metadata. There's lack of sync up. It's dangerous.

- ~ Using schema location as a hint. Don't mind a new attribute, but not sure why it needs to be in the label. It's currently a comment in schema.
- ~ Users get and look at labels, not schema.
- ~ There is an efficiency argument, but still concerned. Everything is linked by definition. Everything has an identifier. The only links now are file names.
- ~ Name of file isn't the same as version where you define the schema. This is a providence issue. Very surprised.
- ~ We know things haven't changed because of the bundle checksum.
- ~ That's not how it works. We were supposed to be product centric. We've completely undermined all the work of the last ten years if people have to download the entire bundle.
- **Action Item Anne and Steve** will continue this discussion off line.

CCB-252 - Add "Not Applicable" to wavelength range in Science_Facets See https://pds-jira.jpl.nasa.gov/browse/CCB-252

This is the one from IPDA or PSA asking for wavelength range to be nillable. The ticket on jira seems ready.

Question: Are people ready to vote? Are people not ready to vote? Any other comments?

Answer: (Silence)

**The Vote on CCB-252

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Not Here

PPI - Yes

Rings - Yes

RS - Yes

SBN - Yes**

That's nine to zero with one not voting. Ed will email this to Ron to get to the CCB. **(Action Items)**

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

This one has to do with many source products in an external table. A rough prototype has been worked up and was posted to jira this morning.

~ Jira includes two files, two possible approaches. It would be good if people could review them for the next meeting.

~ That the **Action Item - for Everyone** to read, review and comment in jira.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

Nothing has been done since the last workshop. There will be a summary of where the team is in time for their next meeting on July 17.

II. New change requests

CCB-264 - Make the Line Feed (LF) character an allowed record delimiter See https://pds-jira.jpl.nasa.gov/browse/CCB-264

We tried this in the past with CCB-90 (Add "Line-Feed" as a permissible value for record delimiter in Stream Text, Table Character, and Table Delimited, see https://pds-jira.jpl.nasa.gov/browse/CCB-90) and the MC didn't allow it to be implemented. Seems like a waste of effort now.

We need to ask Rings how much Mark Showalter will object if we bring this up again.

(Action Item - Mitch)

Someone thinks the original SCR was to replace CRLF with LF.

~ Someone disagrees.

Question: We need to specify what this is for. Is it for all text objects?

Answer: People can see Mark's original comments in jira in CCB-90. There was a back and forth between him and Todd King.

~ One of Mark's concerns was people's existing programs. Someone never agreed with that concern.

~ The systems people are supporting this SCR. We should make sure Mark knows that.

For full disclosure - reporter on this SCR is also a DP who needs this, and there are others who also need it.

We need to make sure all of the tools will still work if we do this.

~ Rings suspects Mark will still hold his original opinion, but will tell him EN is okay with it.

CCB-263 - Clarify the use of the term "mission" in Mission LDD namespaces See https://pds-jira.jpl.nasa.gov/browse/CCB-263

The issue is that the use of mission in LDDs isn't consistent. Definition of a mission LDD is evolving. There's no standard, but there are example.

Question: Are there any comments on this?

Answer: Someone is wondering why PDS cares or has an opinion on how others arrange their namespaces. PDS doesn't have to influence how others, like PSA, do things.

- ~ Someone agrees. Thinks there should be a comment in the SR that talks about mission products going into the PDS. Other groups can set it up how they want.
- ~ We're talking about namespaces, not LIDs, for mission LDD. This would mean the mission part wouldn't show up, but agrees too.

To clarify - SCR is not saying mission has to appear, it could. Just not seeing a rule.

Question: You want a rule that says there's no rules?

Answer: No. Want to clarify it. Decide if we want a rule or guidelines.

Another Question: So, PSA is doing something different from PDS?

Answer: If you look at all the posted mission DDs they are not consistent. Plus, the definition of mission DD has changed. Some have been promoted to the discipline level, like the Surface one.

- ~ That's a special case. Not relevant.
- ~ It is because there was always knowledge that things could have common use and be promoted so trying to force the use of mission seems problematic.

So, while trying to avoid everything someone wants to rant about here - having a mission level makes it easier to have unique namespaces. It's an implementation convenience.

- ~ Someone would argue that we need to define what a mission LDD is and what constraints are on it.
- ~ We used to have a constraint that they can't reference each other.
- ~ That's the point. These are really DDs that aren't referenced.
- ~ Thought the goal was to have the core under tight constraint by PDS, discipline DDs controlled by nodes and mission LDDs controlled at the mission level.
- ~ We need tags that tell the level of governance.
- ~ This is a change that should be in 2.0.
- ~ Except we shouldn't arbitrarily include mission.

PSA needs clarification on this. Concerned about if they need mission in namespaces.

- ~ PSA should be able to do whatever they want, regardless of choices varying from PDS. Software should be interoperable no matter what.
- ~ Someone agrees.
- ~ Someone also agrees, but all the examples include mission.
- ~ The examples in the SR are causing the confusion.
- ~ The examples in the SR are very specific. Maybe this SCR needs to be changed to be more accommodating.
- ~ We need to add text to the SR about interoperability and international cooperation.
- ~ That should go in the DPH.
- ~ No, in a separate document.

~ Not in the DPH, that's more deeply steeped in PDS requirements.

We need more discussion on this. People should add their comments in jira **(Action Item - Everyone)**

SBN is currently working on the Rosetta mission LDD. Could make some test labels for this. Maybe. Not sure that this will make the next build.

Question: Is the reporter okay with that?

Answer: This SCR is to clarify the use of mission. It seems like it's not required, so the examples should be updated.

- ~ It seems like there are a lot of issues here.
- ~ Reporters next concern is that the difference between mission and discipline DDs needs to be documented.
- ~ Someone doesn't agree that mission is optional. Thinks it should be required for PDS. We need to discuss this. Other agencies can do what they want.

This should be taken off line.

~ Yes, everyone should put comments in jira and then we can figure out how to focus this SCR and all the issues that came up today.

Question: Did we resolve the question of if PSA has to use mission?

Answer: We could take a straw vote to see if anyone objects if PSA doesn't use mission in their namespace.

~ The examples don't mean things are required. It's okay if PSA does what they want to do.

Another Question: Anyone think they are required to use mission?

Answer: (Silence)

- ~ PSA wants to get their namespaces registered.
- ~ The question is if our tools can handle the external agencies.

Set next telecon date

We will try to meet next Thursday. If there's been any progress, we will meet July 18.

Ed will be on travel July 25.

DDWG Notes 2019-07-18

title: DDWG Notes 2018-07-18

layout: default date: 2019-07-18

July 18, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, A. Raugh, B. Semenov and R. Simpson Known Observers: M. Bentley (alternate for T. Lim) and P. Lawton

DDWG Agenda

(Included in email sent July 16, from E. Guinness, DDWG agenda for July 18 at 9:30 PT (13:00 ET) - Normal time)

- I. Review status and continue discussion of active SCR work.
- 1*) CCB-262 Add "Context" as value for Primary Result Summary.purpose. Still discussing an acceptable value. Several suggestions have been posted to JIRA.
- 2) CCB-261 Method to indicate a product is part of a collection with a DOI.
- 3) CCB-260 PDS4 labels do not have a unique file extension.
- 4) CCB-259 Need a null result option for Product Observation. Several comments added to JIRA.
- 5*) CCB-258 Use of nilReason with xsi:nil should be required. Anne to explore possible solutions. See comment in JIRA.
- 6) CCB-256 Need method to provide permissible value definitions in Ingest LDD. A prototype/strawperson solution is included on JIRA. Anne and Steve to look at possible implementation.
- 7) CCB-255 Namespace version dependencies are not documented in the Information Model. Anne, Steve and Mitch are on working group. Possible solution is included in a JIRA comment. Continue discussion.
- 8) CCB-220 Specify many source products in a table. Cristina, Mitch, Tanya and Ed are on working group. Group had action item to review and comment on possible approaches posted by Cristina.
- 9) CCB-202 Instrument type in Context Products this change has already been approved. Need status update on implementation.

The starred items are ones that I think we can finish for the next build. There may be others nearly ready or urgent to get included.

- **(Discussed)**
- II. New change requests
- 1) CCB-264 Make Line Feed an allowed record delimiter. Mitch to chat with Mark on his current opinion for this request.
- 2) CCB-263 Clarify the use of "mission" in mission LDD. Mitch added comment to JIRA.
- **(Discussed)**
- III. Parked until Steve has time to review

- 1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address as soon as he can.
- **(Not Discussed)**
- IV. Other topics?
- **(Yes, but discussed at the beginning)**
- V. Set next telecon date –August 1 and August 8. I'm on travel for July 25.
- **(August 1 and 8)**

DDWG Telecon

Pat Lawton from SBN is attending today. She will be attending more in the future for Anne as Anne is on travel. She needs to be added to the DDWG list and jira.

There was email this week regarding name changes for SCRs. This came from CCB-262 and also CCB-252. Both of those had titles that included the proposed solution. For CCB-262 the proposed solution was changed from support to context and that changed the title of the SCR. Reporter should have used a more generic title. Not sure how we can change the title of CCB-252, but the CCB didn't like the title after reading the comments in jira. We shouldn't assume the solution when naming SCRs.

- ~ It would also be appreciated if the titles weren't so long.
- ~ That makes sense.

Question: Are there any comments?

Answer: This is a good idea. For the SCR from IPDA about wavelength range, the solution didn't match the title and that caused some confusion.

I. Review status and continue discussion of active SCR work.

CCB-262 - Add an enumerated value for Primary Result Summary.purpose to describe support observations See https://pds-jira.jpl.nasa.gov/browse/CCB-262

There have been several suggestions posted to jira. "Support observation" seems to be popular.

- ~ Someone likes the creative use of the English language. Would like to eliminate some of the suggestions, especially the ones with the word context in them, to limit confusion. Would keep observation support, supporting observation and support observation.
- ~ Someone would drop coordinating observation because it already has a separate meaning at SBN.
- ~ GEO seconds that.
- ~Someone prefers observation support, but thinks all three suggestions are okay.

Question: Could go either way on the term, but besides just adding a term, how do we know which observation is supporting?

Answer: We might need a schematron rule and an internal reference to another product. This will come up in the Cassini ISS migration.

Another Question: It's something to think about. What should we do here?

Answer: Trying to understand, to figure out. The product is a context image, so from a user perspective in search, think they use the word context in their search. Not sure where will it says to use support image when searching the PDS. Not sure how we can expect the user to do this mapping.

- ~ This is a regular observation to support some other observation. It's nothing like our context products.
- ~ I agree, but not sure how we get our users to search for a support image instead of a context image.
- ~ This is a language issue.
- ~ If users look at the possible enumerated values for purpose then it becomes obvious.
- ~ Still think this is confusing. Don't see why we're forcing this jump.
- ~ Context products are part of our documentation.

- ~ That's why support will be confusing.
- ~ We can help with the mapping.
- ~ We're used to the tern context image, but other support products may not be so familiar.
- ~ Someone is leaning towards supporting observation.
- ~ There's an instrument called a context imager was trying to avoid saying that.
- ~ With a keyword search a user will have to scroll down very far before they get to purpose. In a general search, facets become more useful for search.

We can analyse this forever without improving it. We need to decide what we want to use, update the ticket and go from there.

~ We can do a quick straw man to see which one people like best, observation support, supporting observation or support observation.

**Strawman Poll of which term is preferred:

ATMOS - Either Support Observation or Supporting Observation IMG - They all sound the same EN - Support Observation GEO - Supporting Observation, but fine with Support Observation.

NAIF - Supporting Observation

PPI - Supporting Observation

Rings - Supporting Observation

RS - Observation Support

SBN - Supporting Observation, but no strong feelings.

IMG again - Supporting Observation**

Supporting Observation came out ahead.

Action Item - Mitch will change the solution in jira.

~ Then we can vote.

Question: If we change the title in jira will that affect the TA?

Answer: No, but it should be updated.

Action Item - Steve will update the TA.

Action Item - Mitch and Steve will let Ed know when those things are done.

We can schedule a vote for in two weeks.

~ We will be done with this before the next build.

CCB-261 - Add an optional method for indicating that a product is a member of a larger collection that has a DOI See https://pds-jira.jpl.nasa.gov/browse/CCB-261

Question: Any progress on this one?

Answer: The only progress that could be made would be if we had a general discussion about weather this should be done. Maybe we should put if off until after the build.

CCB-260 - PDS4 label files do not have a unique file extension See https://pds-jira.jpl.nasa.gov/browse/CCB-260

Same as CCB-261. This also should probably be put off until after the next build.

CCB-259 - Need a "Null Result" option for Product Observational See https://pds-jira.jpl.nasa.gov/browse/CCB-259

There have been some comments in jira. Not sure how urgent this is.

Someone has looked at the comments in jira.

- ~ Some more have been added. Seems like the natural way to do it would be with stream text in the label.
- ~ Not sure that's natural. File area is required. Would need an alternative to that. Not elegant.
- ~ Seems there's an easy way to fix this.

Question: Should file area be nillable?

Answer: You can't make a complex class nillable.

~ Prefers to have the information not be required - I just want to know that the observation didn't work.

This isn't urgent.

Question: If there's a file that says there's no data here and can say in the description...?

Answer: That's an ad hock solution. The description isn't controlled. You have to read the file to know.

- ~ So you want some type of indication this is a null result.
- ~ A programmatic way to discuss this.

We're not going to solve this now. Seems like we're asking for a null result product.

- ~ Currently, Rosetta has some files that just list particles on collector plates. Some plates have no particles. Need to indicate those are null. Everything else is a table.
- ~ We're not going to solve this before this build.
- ~ That's fine Rosetta is PDS3, so we can deal with this.
- ~ If it's just going to be a label and we need to replace file area we need to make sure the solution doesn't blow up in our faces. We need to properly design what that class would look like.
- ~ Agreement.

CCB_258 - Use of nilReason with xsi:nil should be required and validated See https://pds-jira.jpl.nasa.gov/browse/CCB-258

There's a schematron solution, but wondered if there was an xml solution that could be used. Didn't find one.

We talked about this last week. We could add schematron to LDDs. The solution is reasonable.

Question: Would there be one schematron rule for all possible cases?

Answer: That's an interesting question. Will look into it while we move the discussion on.

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-256

Anne and Steve were going to think about how to implement this.

~ They liked the first choice in jira.

Question: TA?

Answer: It will be done. There wasn't an action item to do it yet.

Question: Is this a change to ingest LDD?

Answer: Yes. A new class.

Action Items - Steve will do a TA for the first solution and **Everyone** will review it.

~ Maybe we can vote in two weeks.

Question: The TA will be for the first solution - will the second one be removed?

Answer: The ticket needs a a Requested Changes section.

~ **Action Item - Anne** will update jira with request to implement the first method.

CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

There's been lots of back and forth on this one. Right now the only way to tell the version of an LDD is to assume that schema location and file name have the right stuff in them. It's about how to track back to know what's used to create a label. It was proposed that we add something to the identification area - like having the IM version in the label. ~ If the information doesn't exist it should be in the schema. The real issue is that it's all in several other documents and

Question: What identifiers do we have?

Answer: There are several, including product xml schema LIDVID. Another Question: But how do you know the version of an LDD?

we could reference it. Don't see why it needs to be in the label.

Answer: We can refer to it.

This is confusing. Say I produce a label and in that label for that observation I tell people what DDs I have used, the only information in the next line is schema location, which has file name with version. That's all that's there. No LID or LIDVIDs. We have a combo of core DD and IM version. We don't have a way to track the versions. Think it's a good to have an option to indicate that in labels.

- ~ Still trying to understand how people think there's no unique identifier.
- ~ It's not there.
- ~ Proposing we add that.
- ~ There's nothing about versions in labels for LDDs.
- ~ We want to add something in label. The question is if we use identifiers or add a bunch of attributes. Concerned about efficiency.

There could be multiple solutions. Modify classes or modify LDDTool.

- ~ Yes. Modifying LDDTool is more elegant. Still need a mapping from namespace, namespace ID, name of file and LIDVID of the product. They all need to be unique and map to each other.
- ~Yes, but version ID in DDs is only allowed to be two places, not four.
- ~ Additional complication we need to validate that namespace corresponds to what's in the label.
- ~ LID should have a version ID.

Question: So LIDVID would have two version IDs?

We need to table this. People should put their comments in jira. Not sure how long ago this conversation began - it was at a F2F at SETI. It's a good idea to solve this once and for all.

~ Whatever solution we use for the core should be used for all namespaces and vice versa. We need to be consistent.

Question: Do we need a tiger team telecon?

Answer: We're converging now. At least we understand each other now.

- ~ We agree it's important to have, but there are options on how to do it.
- **Action Item The Tiger Team (Anne, Mitch and Steve)** should get together and come up with possible solutions and bring them to the group.

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

A few options were posted in jira for last time we met. No additional comments in jira. Please take a look and comment in the next two weeks. **(Action Item - Everyone)**

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

Question: Status?

Answer: Team converged on a process document. Need to get the types. Meeting in two weeks. Should have a pretty good list by the end of August.

- ~ Only two team members attended. Others met in Flagstaff and came to a different agreement. In the meantime, needs a namespace to use. Instype is what's proposed.
- **Action Item Steve** will update the namespace registry and email Dick.

II. New change requests

There's a new one today.

CCB-265 - Complete internationalization for local dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-265

Jira says: "This CCB issue is being raised to collect a punch list of remaining internationalization issues so they can be addressed in a timely manner." Jira lists the issues that have been identified so far.

Question: Do these end up being changes to ingest LDD and LDDTool?

Answer: Think so. Need to be careful and think about it.

Tom Stein had an action item from the F2F - not sure if it's done - it could help make this work.

- **Action Item Anne** will talk to Tom and track the list.
- ~ Sounds good. PSA has a list too. Will compare the lists.

CCB-264 - Make the Line Feed (LF) character an allowed record delimiter See https://pds-jira.jpl.nasa.gov/browse/CCB-264

Mitch talked to Mark about this. Mark's position has not changed. He is concerned about two things - the potential to break pre-existing software and when doing the design we said there was too much flexibility in PDS3. We picked line end for PDS4 and should make pds software so data can be checked, fixed and validated. Strongly opposed to having a new record delimiter.

Regardless of this group, suspect we will be in the same boat with the MC and will probably get shot down again.

Action Item - Mitch will put Mark's comments in jira.

Reporter should consider this again. Think about why we should spend the time on this again if it's going to get shot down again. But it also seems that we should be canvassing the community on this. This is very basic. Maybe we need to consider changes like this and get feedback from the community.

Question: Does that resonate?

Answer: Yes, but endless conversation we won't get far on.

~ If we can demonstrate that the community wants it, hopefully we would have enough flexibility to be able to do this.

Question: How do we demonstrate demand?

Answer: Planetary Data Workshop and other meetings. Get feedback from the community.

- ~ On a personal note, I get asked about this sort of thing. Seems like we need to talk with the community.
- ~ DPS is coming up. AGU. Conferences where PDS will have a presence. Should collect issues from users. Maybe if there are enough opinions on one issue it can be brought forward.

Don't know who voted what, but when the MC voted on this there was a majority.

CCB-263 - Clarify the use of the term "mission" in Mission LDD namespaces See https://pds-jira.jpl.nasa.gov/browse/CCB-263

This is not urgent, but we need a tiger team to think through this. So far, mission is not required.

Question: Volunteers? Other changes we need to make?

Answer: Reporter is willing to write another SCR. We need a formation rule. The main issue is that PSA can go ahead.

~ Put all that in the jira comments. **(Action Item - Steve)**

This SCR was to see what PSA had to do, so we could close this out and write a new one.

- ~ We could modify this one.
- ~ We could remove Item B and it would be good or we could focus on all the levels of dictionaries. It might be easier to start over.

Steve can decide if he wants to withdraw it and send email to Ed and Ron if so. **(Action Item - Steve?)**

#V. Set next telecon date

Pretty much worn out now. Action items will be in the notes. We can talk again August 1. We have two meetings left before the build. August 1 and August 8.

UMD will not be available August 8 - it's the A'Hearn symposium.

- ~ Anne could vote electronically.
- ~ Only if she knows by the Monday of that week.
- ~ There may not be anything to vote on.

DDWG Notes 2019-08-01

title: DDWG Notes 2019-08-01

layout: default date: 2019-08-01

August 1, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson

DDWG Agenda

(Included in email sent July 30, from E. Guinness, DDWG agenda for August 1)

- I. Review status and continue discussion of active SCR work.
- 1) CCB-261 Method to indicate a product is part of a collection with a DOI.
- 2) CCB-260 PDS4 labels do not have a unique file extension.
- 3) CCB-259 Need a null result option for Product Observation. Several comments added to JIRA.
- 4) CCB-258 Use of nilReason with xsi:nil should be required. Anne to explore possible solutions. Anne has proposed a solution that she thinks will work in all cases. Request still needs a requested changes section and a tech assessment.
- 5) CCB-256 Need method to provide permissible value definitions in Ingest LDD. The proposed solution has been updated and a new mock-up of the needed class has been posted. Please review.
- 6) CCB-255 Namespace version dependencies are not documented in the Information Model. Anne, Steve and Mitch are on working group. Possible solution is included in a JIRA comment. Continue discussion.
- 7) CCB-220 Specify many source products in a table. Cristina, Mitch, Tanya and Ed are on working group. Group had action item to review and comment on possible approaches posted by Cristina.
- 8) CCB-202 Instrument type in Context Products this change has already been approved. Need status update on implementation.
- **(Discussed)**
- II. New change requests
- 1) CCB-265 Complete internationalization for local dictionaries
- 2) CCB-264 Make Line Feed an allowed record delimiter. Mitch to chat with Mark on current opinion for this request.
- 3) CCB-263 Clarify the use of "mission" in mission LDD. Mitch added comment to JIRA.
- **(Brief Discussion)**
- III. Parked until Steve has time to review
- 1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address as soon as he can.
- **(Brief Discussion)**

IV. Other topics?

(None)

V. Set next telecon date – August 8. Last telecon before MC F2F and build deadline.

(Discussed)

DDWG Telecon

No one from Rings or NAIF is on the call today.

Hopefully this will be a straightforward meeting. We are close to the next build. Hopefully we can wrap up a few more items. The CCB approved CCB-252 (Add "Not Applicable" to wavelength range in Science Facets), no results on CCB-262 (Add an enumerated value for Primary Result Summary.purpose to describe support observations) yet.

We probably won't worry about all the items in section II today. There are also some section I items that will be put off until after the build.

I. Review status and continue discussion of active SCR work

CCB-261 - Add an optional method for indicating that a product is a member of a larger collection that has a DOI See https://pds-jira.ipl.nasa.gov/browse/CCB-261

A comment has been added in jira, but we don't seem to be anywhere close to a solution for this yet.

Question: Any comments?

Answer: Agrees. We shouldn't rush this.

- ~ The comment in jira is that there would be issues because of the timing of when a doi is assigned since it could be after products are put on-line.
- ~ That shouldn't be a problem because there would be a new doi if there are new products, but there are many issues to consider for this SCR.
- ~ Comment is also that getting this right will take a lot of work and not sure that the payoff for PDS is worth it.
- ~ There are larger issues. We should wait on this.

CCB-260 - PDS4 label files do not have a unique file extension and CCB-259 - Need a "Null Result" option for Product Observational See https://pds-jira.jpl.nasa.gov/browse/CCB-260 and https://pds-jira.jpl.nasa.gov/browse/CCB-259

We also shouldn't rush these into the build. There are no new comments in jira.

CCB-259 is a little bit more urgent, but it's not worth pushing it. There are a few possible solutions. Maybe Anne, Steve and Jordan can discuss it at the MC.

Someone doesn't believe there's any rule that says you can't have a zero sized file.

~ There's a potential problem with validation. It looks like an error or a problem if there's a zero size file. Nobody wants to have to maintain zero length files.

We need to have a thoughtful discussion on this.

CCB-258 - Use of nilReason with xsi:nil should be required and validated See https://pds-jira.jpl.nasa.gov/browse/CCB-258

This one is close to ready. Seems like a universal solution was found with schematron and was put into jira.

~ There's no TA yet.

Question: Have people looked? Any comments?

Answer: Someone agrees that this is the right solution. It just needs some testing.

The ticket doesn't have a Requested Changes section.

~ Reporter will copy the proposed solution in. **(Action Item - Anne)** ~ Then it needs a TA and people can take a look. If there are no major issues we can vote. Hopefully, we can get it in the next build.

Action Item - Steve will do the TA.

Someone doesn't want to vote until we see it.

- ~ Maybe we can vote next week.
- ~ No SBN people will be available to vote next week. It's the A'Hearn symposium and an SBN meeting.
- ~ Anne can vote by mail. Others will vote on the call next Thursday.

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-256

There is a new mock up of what it would look like in jira.

Question: Has anyone reviewed it yet?

Answer: Someone looked it over, but doesn't really know much about it. Concerned about importing attributes from one LDD to another LDD and adding new enumerated values. Seems like we are making a lot of spaghetti.

- ~ This argument has been going on for over a year. People can take their issues to the MC.
- ~ This was discussed at length at the tech session. We decided to go on a case by case basis, but this is different. If using an internal reference you need a reference type we need to be able to define that. Thought that's what this is about and that it makes changes to LDDTool and ingest LDD.
- ~ Yes.
- ~ We still need to see if this can be done.

We've been discussing this for weeks. There were two possible solutions outlined. We agreed on the first one. I think it's good and it's ready for a TA.

Question: Do others have any thoughts on this?

Answer: (Silence)

- ~ This needs a Requested Changes section and a TA. If the reporter does the Requested Changes and the TA is done, then maybe we can vote next Thursday.
- **Action Items Anne** will add the Requested Changes, **Steve** will do the TA, and **Ed** will let **Everyone** know when they can do their final review.

This is an efficiency we are building into LDD.

- ~ It will affect existing LDDs. They all have an internal reference of some sort.
- ~ Currently, if there is no reference type you get an error.

Someone is also not a fan of spaghetti. That's why it was decided that things should be looked at on a case by case basis.

Someone will probably abstain from the vote. Not real familiar with LDDs.

##CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

We had an extended discussion on this last time. Seems like people are interested in having this. There are two possible solutions - a new class or a LID in the LDDs. Not sure we want to rush into this before the build.

~ We are close, but we do need more time. Think we need a class and a unique identifier.

Maybe the tiger team can discuss this at the MC.

Question: Any other comments?

Answer: (Silence)

~ If we have to wait for the next build than so be it.

CCB-220 - Add ability to specify many source products via table

See https://pds-jira.jpl.nasa.gov/browse/CCB-220

Hasn't been much comment on the prototype in jira.

~ Reporter hasn't heard from people. Plans to look at the SR and work on renaming classes.

People will need to be informed when it's time for the tiger team to meet. Probably this SCR won't be in this build.

Question: Looked about a week ago and saw a lot of TBDs. Is there going to be additional editing?

Answer: Yes. The examples were attached two weeks ago - forgot to remove the TBDs.

- ~ There's also a place where it says add more text here.
- **Action Item Christina** will fix the SCR.

SBN has sample data that can be used for testing when it's ready.

CCB-202 - Amend the Instrument Class Context Product

See https://pds-jira.jpl.nasa.gov/browse/CCB-202

There has been some action. The process document has been sent to the stewards.

- ~ The document is in signature with steward team. Need to edit the ingest file and do a few things for search.
- ~ The document isn't very long.
- ~ Jordan passed it by someone at EN for comments.

The important thing is getting the first dictionary out so people can use it.

II. New change requests

CCB-265 - Complete internationalization for local dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-265

This one isn't ready, but the work has been in progress along the way. We won't have to start from scratch on this.

III. Parked until Steve has time to review

CCB-Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

We used to say this would be in the next build, but that was actually referring to the last spring build. Not sure when there will be time for this.

Steve plans to work on this. **(Action Item)** It shouldn't affect anything operational.

- ~ This is high level thinking under the hood.
- ~ If there is something for the DDWG to work on Steve will let the DDWG know.

Question: Anyone have any other topics to bring up?

Answer: (Silence)

V. Set next telecon date

Question: Besides Anne, is anyone not available next Thursday?

Answer: (Silence)

We will meet again August 8. Hopefully, we can wrap up loose ends for the build. After the MC we will decide how to prioritize for the next build.

- ~ We should keep plugging away so we don't lose momentum. We shouldn't take a month off.
- ~ People will probably be on travel, but don't think we should take a month off.
- ~ We will try to stay in an every other rhythm.

Anne will not be available at all in September. Will try to train Pat Lawton to be her alternate.

- ~ Dick also has a lot of conflicts coming up.
- **Action Item Everyone** If anyone has big blocks of conflicts coming up let Ed know.

We will meet again in a week.

DDWG Notes 2019-08-08

title: DDWG Notes 2019-08-08

layout: default date: 2019-08-08

August 8, 2019

Notes by Debra Kazden

Known Attendees: C. DeCesare, M.Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, B.Semenov and R. Simpson Known Observers: M. Bentley (alternate for T. Lim)

DDWG Agenda

(Included in email sent August 6, from E. Guinness, DDWG agenda for August 8)

- I. Requests that we could vote on if TAs are complete.
- 1) CCB-266 Change data type of External Reference/reference text. This is new and appears to be a bug fix, in my opinion. It would be nice to get it into the upcoming build and not have to wait about 9 months to get it in. Needs a TA and Requested Change (even though the Proposed Solution is the change requested).
- 2) CCB-258 Use of nilReason with xsi:nil should be required. Waiting on TA.
- 3) CCB-256 Need method to provide permissible value definitions in Ingest LDD. Waiting on TA.
- **(Discussed Voted to send 258 and 256 to the CCB)**
- II. Review status and continue discussion of active SCR work. I don't expect much update on these.
- 1) CCB-261 Method to indicate a product is part of a collection with a DOI.
- 2) CCB-260 PDS4 labels do not have a unique file extension.
- 3) CCB-259 Need a null result option for Product Observation.
- 4) CCB-255 Namespace version dependencies are not documented in the Information Model. Anne, Steve and Mitch are on working group. They plan to discuss possible solution at MC meeting.
- 5) CCB-220 Specify many source products in a table. Cristina, Mitch, Tanya and Ed are on working group. Cristina had AI to fill in TBD and other edits.
- 6) CCB-202 Instrument type in Context Products this change has already been approved. We will track implementation status of the LDD.
- **(Limited Discussion)**
- III. Other change requests to continue discussion after the build deadline.
- 1) CCB-265 Complete internationalization for local dictionaries
- 2) CCB-264 Make Line Feed an allowed record delimiter. Likely to get negative feedback from MC.
- 3) CCB-263 Clarify the use of "mission" in mission LDD.

- **(Not Discussed)**
- IV. Parked until Steve has time to review
- 1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address as soon as he can.
- **(Not Discussed)**
- V. Other topics?
- **(Discussion of a possible new SCR from Steve)**
- VI. Set next telecon date August 22. We can discuss priorities for next build cycle and status of older change requests at this telecon.
- **(Brief Discussion)**

DDWG Telecon

No one from SBN is on the call today - they are having the A'Hearn symposium.

Nine voting members are here today. Hopefully, this will be a short meeting. It is our last before the build.

CCB-262 was approved by the CCB.

The hope is that today we can discuss and vote on items from section I of the agenda and defer other items until we meet again.

I. Requests that we could vote on if TAs are complete

CCB-266 - Change type of External Reference/reference text See https://pds-jira.jpl.nasa.gov/browse/CCB-266

This is a new SCR from IPDA. External reference reference text has to be ASCII which means you can't use things like accents in people's names. Would like to change this to UTF-8. Seems like a bug fix. It would be good to get this in now. There is TA.

Reporter apologizes for originally putting the proposed solution in the SCR name. Saw that there are comments in jira and now realizes that the SCR might be more complex then he first thought. We might need a new data type.

- ~ UTF-8 collapsed and preserved are available.
- ~ Someone suggests we add collapsed and make it available. We could make it UTF-8 text collapsed.

Question: Is there a difference between UTF-8 string and text?

Answer: Not really. We have four ASCII options and three for UTF-8.

Another Question: What is a UTF-8 string?

Answer: It's short string, limited to 255.

- ~ Sees UTF-8 string.
- ~ It's for tables.

Question: What's involved in defining a new type?

Answer: We want to get it right.

- ~ The difference is token it does the collapsing. We could use it where we have UTF-8 text preserved, which doesn't have token. We could create that.
- ~ Or we could use short string collapsed but remove the length constraint.
- ~ Yes, if short is limited to 255. Might be why we went with ASCII here. We need to consider character limits versus byte limits. Don't think we want short.
- ~ If we just use text collapsed or text preserved there are no limits. We want something parallel with UTF-8.

Question: Is this do-able? Answer: Yes, if we all agree.

~ The proposal now is to change to UTF-8 text collapsed and to define that data type. Two parts to this.

~ Yes.

Question: Should the reporter update the ticket?

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

Question: Are people okay voting on this today?

Answer: Someone prefers to evote so we can read the proposal first.

- ~ Reporter says it's fine to wait.
- ~ An evote might be cutting it close for the CCB.
- ~ Steve Joy wanted everyone reminded that the CCB requires at least three work days for each SCR and more if a telecon is called.
- ~ We could do this quickly.
- **Action Item Mark** will update the SCR and **Ed** will call for an e-vote by the end of Monday. If the CCB has time to pass it great, if not then it will be in the next build.
- ~ We'll do our best to get it in.

CCB-258 - Use of nilReason with xsi:nil should be required and validated See https://pds-jira.jpl.nasa.gov/browse/CCB-258

The TA is done. A single schematron rule solution was proposed. People seemed in agreement last telecon. If there are no objections or issues we can call for a vote.

Question: Any issues with this?

Answer: (Silence)

**The Vote on CCB-258

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

Rings - Yes

RS - Yes

SBN - (By email) Yes**

Done. This will be sent out this afternoon.

CCB-256 - Need method for providing permissible value definitions for external namespaces in Ingest LDD. See https://pds-jira.jpl.nasa.gov/browse/CCB-256

We discussed this last time. We thought we had a good solution last time, but someone now has a question.

- ~ Wondered if this change means you can use permissible values only in local context or throughout the label. Foe example, with instrument type, wondered if that handles the need to define values in LDD and also have them appear in the non-LDD portion of the label.
- ~ Good question. People will write the schematron rules. That allows values in ingest LDD, so whatever the current constraints are, they will remain in place.

Question: Say I define values in a Geometry LDD and my label uses that and the Cassini LDD - can Cassini use a Geometry

value? Is that what you mean?

Answer: Yes.

Another Question: When this is implemented will context be constrained in an LDD?

Answer: That's what I thought would be implemented.

- ~ Someone thinks we need that capability.
- ~ Don't think we are addressing that. Could allow an option, but this would implement what we already do.
- ~ It's fine if we need a new SCR.

Question: Is there an example where this is used?

Answer: No, and we need to be careful.

- ~ We have a lot of cases where things mean different things depending on the context.
- ~ Yeah.

We addressed the comments.

- ~ There's more constraint. Can write in even more.
- ~ We need to do this or there's no way to write a value meaning for these new reference types.
- ~ Agreement.

Question: Does anyone want to argue that this isn't ready for a vote?

Answer: (Silence)

~ Okay, we'll vote. SBN did not email a vote for this so we will still need to get their vote.

**The Vote on CCB-256

ATMOS - Yes

IMG - Yes

EN - Yes

GEO- Yes

IPDA - Yes

NAIF - Abstain

PPI - Yes

Rings - Yes

RS - Abstain** (Comment: Really don't understand the issues, but worried this will be a big pile of spaghetti)

There's a majority, but we will still ask SBN to vote.

A possible new SCR

Ed was sent email about a possible new SCR.

When writing an ingest LDD, if you want a class reference with xs:reference you use the element flag and set it to true if you want it exposed. In Schema, you make a type and an element. Think we assumed attributes were exposed, but they are not. Can't be referred to unless element defined at the root level. This new SCR would be to add element flag for DD attribute class. The reason this makes sense is that we are moving towards xs:reference. This gives control to DD designers. Had to do it for logical identifier and local identifier. The reason this came up was another SCR. This will allow stewards to decide what will be visible. This is a change in Opps class. CCB wanted to see these in the past, but the DDWG didn't always want to see them.

Someone is concerned that this could be abused and creates spaghetti. It could cause problems cause of how schema is written, especially if things are not loaded in the correct order. We said we would do this sort of referencing on a case by case basis. Think this needs a lot of thought.

[~] Agrees, concerned.

Question: Is this needed for the common model?

Answer: Its hard coded for common.

- ~ We want the default to be that nothing is exposed. Not sure about this. We wanted to avoid naked attributes. This makes me nervous.
- ~ Someone understands the fear of spaghetti. If we do it on a case by case basis it might be better.

Question: Anyone have an immediate need for this?

Answer: We could put it in jira to really start the conversation. We shouldn't push this through as Opps. This should be discussed.

- ~ Someone remembers in past discussions that this would be allowed. Not sure if there aren't already work arounds. That seems more like spaghetti code.
- ~ We need to step carefully on this.
- # II. Review status and continue discussion of active SCR work

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

The reporter was going to update the change request.

~ Hasn't had time. Will try today, then will set up a tiger team discussion.

There's no hurry for this build.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

The document is still in signature. Waiting on a few more.

Jordan didn't sign. He sent the document to EN for review and it came back with two suggested additions. If we adopt those need to start the signature cycle over.

- ~ The changes weren't to hold this up. The reference to the IM specification seemed worthwhile. Can drop the issue of adding modeling approach.
- ~ Disagrees, but willing to put reference in. Will make the change and then start a new signature cycle.

Let's move on.

VI. Set next telecon date - August 22

We will meet again in two weeks. Will try to keep the two week cycle going. If people have an alternate, alert them for absences. We can always evote if necessary. We will look at open SCRs next time and figure out priority.

Back to CCB-266

The SCR has been updated, but no requested changes yet. If we are going to evote, we need updates to the proposed solution and to put in the requested changes.

Reporter might need help from Ron.

(Action Item - Mark and maybe **Ron**)

DDWG Notes 2019-08-22

title: DDWG Notes 2019-08-22

layout: default date: 2019-08-22

August 22, 2019 Notes by Debra Kazden

Known Attendees: M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson Known Observers: P. Lawton and A. Waldron (alternate for C. DeCesare)

DDWG Agenda

(Included in email sent August 20, from E. Guinness, DDWG agenda for August 22, 2019)

I. Discuss priorities of open change requests. Please review the SCRs so that we can discuss whether it is still a valid request. If it is valid, then what is its priority and who might work on the solution?

SCR SCR Description Submitter Created

267 Add the attribute element flag to DD Attribute Hughes 8-Aug-19

265 Complete internationalization for local dictionaries Raugh 18-Jul-19

264 Make LF an allowed record delimiter Hughes 8-Jul-19

263 Clarify the use of "mission" in mission LDD namespace Hughes 8-Jul-19

261 Method to indicate a product is part of a collection with DOI Raugh 20-Jun-19

260 PDS4 label files do not have a unique file extension Raugh 20-Jun-19

259 Need a null result option for Product Observation Raugh 6-Jun-19

255* Namespace version dependencies not documented in IM Raugh 17-Apr-19

231 Document Edition object has hidden identifier-type Raugh 24-Jun-18

230 Missing Constraints on Source Product Raugh 24-Jun-18

223 Attributes of Special Constant class Raugh 1-May-18

222* Add citation text to Citation Information Mafi 24-Apr-18

220* Add ability to specify many source products via table DeCesare 31-Mar-18

212 Add Modification History to Ingest LDD Gordon 14-Feb-18

211 Add XML as an option for some non-label files Gordon 14-Feb-18

210 Add the Product Ingest class to the IM Gordon 14-Feb-18

208 Add GeoTiff as a permissible value for the attribute Encoded Image.encoding standard id Hughes 18-Jan-18

205 Additional constraints/best practices for discipline and project dictionaries Raugh 20-Dec-17

204 Define and enforce best practices and discipline and project dictionaries Raugh 20-Dec-17

186 ASCII String and UTF8 String whitespace handling Nagdimunov 3-May-17

164 Display Settings not required for images Raugh 29-Jun-16

138 Mismatch between context object types and values of type in Observing System Component class Raugh 24-Nov-15

*Some work has been started

(Brief Discussions)

II. Review status.

1) CCB-202 Instrument type in Context Products – We will track implementation status of the LDD.

(Not Discussed)

III. Parked until Steve has time to review

1) CCB-209 Correct tagged objects. This is an under the hood issue. Steve will address as soon as he can.

(Discussed)

IV. Other topics?

(Brief Discussion)

VI. Set next telecon date – Sept 5. There may be a conflict with the Mars2020 DAWG telecon **(September 5)**

DDWG Telecon

All voting members except NAIF are here today.

The last three SCRs were approved by the CCB. There were 12 approved this cycle.

Today we will try to figure out our next steps. We want to think strategically on what we want to get done for the next cycle. There are eight or nine older SCRs which may or may not still be relevant, plus there are a lot of open issues regarding LDDs. We also want to think about using xml to store data.

Question: Are there any comments or any strategic issues we really should work on? Answer: Someone votes for CCB-209. (Correct Definitions of Tagged * Object, see https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-pt-12">https://pds-

jira.jpl.nasa.gov/browse/CCB-209)

~ There's been email on that.

- ~ Someone agrees that we should work on CCB-209 and we need to resolve issues with SCRs that have to do with LDDs.
- ~ Discussed at the tech session. There were actions from that. Not sure of status. It will come up as we move on.

Question: Any more comments?

Answer: (Silence)

Christina is on vacation today. Anna Waldron is here as her alternate. There hasn't been any work on CCB-220 yet.

Let's start with CCB-209, which isn't on the list...

CCB-209 - Correct Definitions of Tagged * Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

There is a plan to work on this. Two phases - make the changes then discuss them. There will be a prototype. This will mostly be handled by Steve and Dick.

- ~ Eventually this will need to be discussed by the DDWG given the complexity of the changes.
- ~ Someone doesn't think there will be any operational changes.
- ~ People will want to see.
- ~ If it's just going to be deep level changes no changes to schema and schematron, then not sure DDWG needs to be involved.
- ~ Something could change team will be careful not to cause a problem.
- ~ The team is encouraged to work on this and let the DDWG know if they need to vote or pass this through the CCB.
- ~ That's the path it's on. It's a formally written SCR.

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

This was originally from Anne. Not everyone has reviewed it. Unclear if it is still relevant.

- ~ It is still relevant. The mismatch is still there. Validate tool will need type class. Names are not unique across PDS, for example there's the NEAR mission and the NEAR spacecraft. You could get the wrong LID. Not sure what we need to reconcile, but it's ambiguous. Needs to be reconciled.
- ~ In labels, the type is kind of generic, almost hierarchical.
- ~ High level in context product versus low level in observing system.

This could be a very complex problem to try to solve, depending on the definition of the type.

Question: Does anyone have any thoughts on the importance of this and how it can be resolved?

Answer: It's important and needs to be resolved. Context products define the types. Duplicate info in the database, maybe even a third type too if the use of object type in observing system is different from in the context product. If they are the same it's fine. If not, maybe we need a new list.

Question: How do we resolve this? Do we have time?

Answer: When ATMOS was cleaning up the context products this was missed. Lyle and Lynn will discuss this. **(Action Item)** Maybe there is a simple solution, or maybe it's complicated.

~ Having someone look it it is progress.

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

We were close to resolving this and then realized that some products have many arrays and we could be making it very complicated. We never fully finished this.

Question: Any comments?

Answer: The last comment was to allow local identifier reference class to have multiple instances of internal reference class. There were objections. The problem will come up again.

- ~ There was a reasonable solution proposed. Makes sense to use reference type and identifier for many, multiple relations. Makes sense.
- ~ Kind of what we did for source product.

Jordan and Steve discussed this. Jordan supports this, from a software perspective it's not complicated.

~ We could argue about what's present for image, movie, spectrum, etc.

Since this is an image thing we will see if Christina wants to look this over and see if she can work on it. **(Action Item)** ~ Fine.

~ That'll teach her to go on vacation.

There is an attached schema example which may no longer be relevant.

Ed will try to work with Christina on this. Hopefully, we can get this one done. Think we're all in agreement and that we should do this.

CCB-186 -ASCII String and UTF8 String whitespace handling See https://pds-jira.jpl.nasa.gov/browse/CCB-186

We were going to drop this one and then someone said not to.

Question: This is for columns in table in this SCR?

Answer: That SCR gave us UTF8 short string collapsed.

- ~ Not what you would do in a character table.
- ~ The issue is that the schema base type is token.
- ~ If this is for all types of tables delimited and fixed width just need to know if it's ASCII or UTF8. What happens to white space is up to the person looking at the data. We will have to think about this.

Question: If I have an ASCII table, with columns of type ASCII string, what happens to the white space? Answer: **Action Item - Anne** will look at this, but not anytime in the next six weeks. Overbooked.

CCB-204 - Define and enforce best practices for discipline and project dictionaries and CCB-205 - Additional constraints/best practices for discipline and project dictionaries

See https://pds-jira.jpl.nasa.gov/browse/CCB-204 and https://pds-jira.jpl.nasa.gov/browse/CCB-205

Not sure if these have been taken care of yet.

~ Not yet.

We will review these and try to come up with some action to discuss.

A lot of issues were produced by LDDtool that were turned into SCRs. Need further discussion now, on things like where validation can be done, etc.

Action Item - Ed will look this over. People would like **Anne** involved in this when she has time.

CCB-208 - Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id See https://pds-jira.jpl.nasa.gov/browse/CCB-208

Emily requested this. IMG node has been looking at this too.

Question: Is this for supplementary documentation?

Answer: There's a comment in jira that people would like to put GeoTIFF as observational products. Not sure how we'll stop them. GML came up too - was withdrawn. Concerned about this. Not sure we want to go in this direction.

We rejected TIFF because it's not a standard. GeoTIFF is from that.

~ TIFF is allowed in a few contexts, but not for observational data.

We should ask Emily what she wants to use this in.

- ~ The SCR says observational supplemental images.
- ~ Trent at IMG/USGS has been looking at this too. We should talk to him too.

^{**}Action Item ** We will bring Emily and Trent into this discussion.

We can decide the constraints for GeoTIFF. Concerned because some PDART proposals say they will archive in GeoTIFF.

- ~ This led to discovering the PDS Annex. It says it's an equivalent archive, but it doesn't require PDS compliance.
- ~ The call for proposals lists the PDS Annex as an equivalent archive.
- ~ The annex gets a lot of data.
- ~ We don't want to confuse this SCR with the annex.

Someone has been trying to find the GeoTIFF standard. Can't lay hands on the actual specifications. Without that this is a non-starter.

- ~ Trent reported at the MC that he's trying to create PDS4 labels with GeoTIFF.
- ~ The MC should really consider if they want to sign off on that.
- ~ They would probably want to hear from us first.

Someone thinks Emily's intent is in the SCR and we should be checking with Trent. Her products may not be observational, so the **Action Item** is to find out exactly what she's trying to ingest.

- ~ In the comments it says lunar and Mars images. Those are observational products.
- ~ There are other products that can be used for the PDS4 archival product these could be supplemental products. We need clarity.

CCB-210 - Need to preserve the Ingest LDD file as part of a PDS4 Product, CCB-211 - Add XML as an option for some non-label files and CCB-212 - Add Modification History to Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-211 and https://pds-jira.jpl.nasa.gov/browse/CCB-211 and https://pds-jira.jpl.nasa.gov/browse/CCB-211 and https://pds-jira.jpl.nasa.gov/browse/CCB-211 and https://pds-jira.jpl.nasa.gov/browse/CCB-212

These were discussed a bit at the tech session. EN was going to suggest some changes to product ingest class to make ingest file part of LDD and capture the history of the changes. Not sure if there's been any progress.

- ~ Not that I know of. Seems like this is part of other SCRs.
- ~ Submitted CCB-260 (PDS4 label files do not have a unique file extension, see PDS4 label files do not have a unique file extension) versioning, namespace, different from versioning in product. Not clear. There are more issues and possibilities. This needs some serious discussion.
- **Action Item Ed** will go back to the tech session notes and review this. Will discuss it with Jordan.

We've poked at it a few times. A complicated problem. Might want a day at the next F2F to discuss this.

- ~ Ed will discuss it with Jordan.
- ~ The next MC is already 3 days long, with one day based on the long view of PDS based on Dan's paper.
- ~ After the MC we will be preparing for the senior review.
- ~ We only need an hour or two.
- ~ Don't think that's true.

CCB-212 can be divided out. It's a slam dunk. We can get it done. Soon.

- ~ Someone tried working on it and it got all bundled up with the versioning issue.
- ~ Still think it should be at the top of the list.
- ~ We might be able to fix this with a schematron issue maybe.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

This one had been put aside because team leader didn't have time to work on it.

~ Will access upcoming tasks and see if there will be time soon. **(Action Item-Joe)**

CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

Steve and Anne were going to discuss this at the last MC.

- ~ We have a mock up. Seems reasonable.
- ~ Suggested LIDs.
- ~ Ran into problems. Need to require version of the model.

For now, the **Action Item - for Anne and Steve** is to discuss this more.

Thought we had come to an agreement. Will work on it one more cycle.

~ We need to add some documentation to jira.

This is a pretty high priority. It would be nice to finish it for the next build.

Question: Are there any SCRs that we have discussed that people think should be higher priority? Answer: Working on CCB-265 (Complete internationalization for local dictionaries, see https://pds-jira.jpl.nasa.gov/browse/CCB-265).

~ Good, it's achievable.

We can discuss CCB-267 (Add the attribute element flag to DD Attribute, see https://pds-jira.jpl.nasa.gov/browse/CCB-267) too. A comment has been added in jira about the element flag.

- ~ Thought was all agreed that was controversial. Open to not putting it in, but need a check that people aren't using a back door.
- ~ That's not a back door, it's the preferred method.

CCB-264 (Make the Line Feed (LF) character an allowed record delimiter, see https://pds-jira.jpl.nasa.gov/browse/CCB-264) - thought there was no more enthusiasm for this one. MC will probably turn it down.

- ~ The community wants it.
- ~ A lot of DPs complain about this.
- ~ The complaints need to be documented. That can be taken back to the MC.
- ~ The entire Unix community is concerned about this.
- ~ We need more specifics.

Question: Do you want a poll of our DPs? Not just empirical feelings?

Answer: There's a big difference between someone who contacts a node to complain versus asking a person if they would like a choice. It is a data transformation and validation issue for PDS. Not onerous. Could probably accommodate it, but not sure that people like it is a good enough argument.

- ~ Showalter's concern is about more then just the convenience of the DPs.
- ~ Someone would like to know how many people it really would affect.
- ~ We could easily provide software to do the transformations. Reluctant to make changes to standards to accommodate current preferences.

This will be contentious, but it's in the queue. If anyone has any big ideas on this bring it up again.

- \sim It's very difficult for IPDA DPs. Beppi has DPs providing Fits. Have to write software to fix the headers.
- ~ No. Those headers are binary, not text. That's invalid.
- ~ That will need to be discussed. The issue we have is that DPs end up providing two sets of data one for them and one for us.
- ~ **(Action Item Anne and Mark** should discuss this maybe at DPS.

We are over our hour limit. Our next telecon will be September 5. Ed is busy a week later. There could be a time conflict with Mars 2020. Stay tuned for a possible time shift.

~ SBN has an all day data review.

~ RS also ha a conflict on the 5th.

A meeting one week from now won't be profitable. We will meet on the 5th to check status.

DDWG Notes 2019-09-05

title: DDWG Notes 2019-09-05

layout: default date: 2019-09-05

September 05, 2019 Notes by Debra Kazden

- **Version 2 September 6, 2019
- ~ These Version 2 notes include one correction.

In the CCB-208 discussion:

Original Notes say:

"even if we never call t GeoTIFF"

Changed to: "even if we never call it GeoTIFF"

Known Attendees: C. DeCesare, M.Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson Known Observers: D. Hollibaugh Baker, M. Bentley (alternate for T. Lim) and P. Lawton (alternate for A. Raugh)

DDWG Agenda

(Included in email sent September 3, from E. Guinness, DDWG agenda for Sept 5, 2019)

- I. Continue discussing change requests that were talked about during the last telecon.
- 1) CCB-209 Correct tagged objects. Steve, can you estimate when you have time to work on this?
- 2) CCB-138 Mismatch between context object types and values of type in Observing System Component class. Lyle and Lynn to discuss developing a plan to address this.
- 3) CCB-186 ASCII String and UTF8 String whitespace handling. Anne will look at this when she has time (not for six weeks).
- 4) CCB-204 Define and enforce best practices for LDD. Ed to review SCR to see what part of this is still relevant.
- 5) CCB-205 Additional constraints/best practices for LDD. See above.
- 6) CCB-208 Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id. Ed initiated an email discussion on this request. See JIRA for comments.
- 7) CCB-222 Add citation text to Citation Information. Joe to assess status.
- 8) CCB-255 Namespace version dependencies are not documented in IM. Steve and Anne to discuss top two possible solutions.
- **(Discussed)**
- II. Review status.
- 1) CCB-202 Instrument type in Context Products We will track implementation status of the LDD.
- **(Discussed)**

- III. New requests for reference
- 1) CCB-269 Unexpected Error when Classes are missing from for Product SPICE Kernel. Context Area
- 2) CCB-268 Add optional attribute to class DD Permissible Value
- **(Discussed)**
- IV. Other topics?
- **(None)**
- VI. Set next telecon date Sept 19 (Does this conflict with DPS) or Sept 26. I will be unavailable Oct 10.
- **(September 19)**

DDWG Telecon

We will discuss our future schedule and possible conflicts at the end of the telecon today.

Looked for action items in the meeting notes for discussions today. We will not be voting on anything today. We will run through the agenda.

I. Continue discussing change requests that were talked about during the last telecon

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

The kick off of the work on this has been done. Results were sent for review. There won't be any more work until after September. The issues will be resolved. The first step resolved 80% of the issues.

- ~ There will be more progress in October.
- ~ Team will report as they work through the issues.

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 is a very old one. Lyle volunteered to discuss this with Lynn and maybe devise a plan.

~ ATMOS discussed it in terms of the context document. Think it should be reduced down to four types, really two - instrument and host. Host captures all the options: spacecraft, laboratories, etc. Could also include two more classes - telescope and literature search. That's how ATMOS thinks observing system component type should be classified.

Question: Can you put it in jira for everyone to review?

Answer: Will add a document in comments, but not the reporter. **(Action Item - Lyle)** Another question: Does anyone have any comments now?

Answered with a question: So, only host and instrument, in cases where there are balloon, gondola and telescope - can the elements be stacked?

Answer: Yes. Host can be stacked. Instrument is the piece at the end.

CCB-186 - ASCII String and UTF8 String whitespace handling See https://pds-jira.jpl.nasa.gov/browse/CCB-186

Waiting until mid-October for work on this one.

CCB-204 - Define and enforce best practices for discipline and project dictionaries, and CCB-205 - Additional constraints/best practices for discipline and project dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-204 and https://pds-jira.jpl.nasa.gov/browse/CCB-205

Action from last time was for these to be reviewed. Hasn't been time yet. Will be after September 16 **(Action Item - Ed)**

CCB-208 - Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id See https://pds-jira.jpl.nasa.gov/browse/CCB-208

There has been some movement on this one. Trent has comments in jira. He said that with certain constraints - not compressed and contiguous - it's okay. Strong proponent of allowing GeoTIFF as a product observational. There's a link to the standard. Mark also made a comment in jira. Others have been involved through email. There was a suggestion that we withdraw this SCR and write a new one.

- ~ Reporter was hoping to get out of the loop on this. Reported for Emily. Would like Trent to be the lead on this.
- ~ Seems like Emily didn't really understand the problem.
- ~ Yes, and it's an evolving issue. She wanted to use for supplemental.

Mark's comment in jira is relevant. He wrote "If I understand correctly, uncompressed GeoTIFF could already be archived as an observational product, since its basic array structure matches PDS4 requirements. But the above would also allow for compressed GeoTIFF images to be archived as non-observational products and correctly described - is that correct?" ~ It seems like there's a bigger issue of what we need for headers and we should be able to archive it if it meets the requirements - even if we never call it GeoTIFF.

~ Someone agrees. If we want it for an observational product, and it's not compressed and is contiguous, it could just be a 2D array image. We need to document that. Maybe we need a new SCR.

MC would have to sign off on new data formats.

- ~ This isn't a new format. MC signed off on CDF and FITS.
- ~ As long as it meets the requirements, who cares.
- ~ Agreed, but we should follow our policies.

Someone thought the issue was the label.

- ~ Not label, header. We have encoding standard ID it only allows TIFF for now. Could do this in array 2D with a header, but we'll need documentation to say that GeoTIFF can be used in restricted situations for product observational. This SCR is for supplemental.
- ~ Sounds like something for the CCB. To allow GeoTIFF with constraints it has to be documented.
- ~ Yes, in the SR. Something was done for FITS. Not sure if that's in the SR or the SBN wiki.

Question for Christina: Could you work with Trent on allowing GeoTIFF as an observational product? Answer: Sure.

~ We need a new SCR for GeoTIFF as an observational product and to document the restrictions. We should also work on CCB-208 for non-observational data. We could add GeoTIFF for those since it's a special case if TIFF.

We need someone new to be the champion of CCB-208.

~ For now, Ed will review the SCR and ask Christina if he needs help. **(Action Item - Ed)**

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

Joe was going to look at this one.

~ Yes. PPI was doing some work with Todd's DOI request tool and looked at the standards/elements in the requests. Planning to go through them and make sure we have all the elements PDS is using. We aren't using datacite. The standard we are using is based on an early version of datacite. Will make sure all required parameters are part of the PDS4 metadata. Hope to work on this in the next few weeks. **(Action Item - Joe)**

We should be using datacite.

~ It's a lot richer. Many things for archiving and labelling data sets, but the organization we are registering our DOIs through uses the older standard. One of the standards has publication year and another has publication date. A lot of stuff in the new version would be very useful.

~ The service is OC. They are working towards the datacite standard. We should be ready for that.

People look forward to hearing what Joe comes up with.

CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

Anne and Steve were going to continue their discussions of this one.

- ~ No work since the Planetary Data Workshop. Nothing is finalized yet.
- ~ Won't be working on it at DPS because Steve won't be there.

II. Review status

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

The stewards team met last week. Making progress. Working on LDD. Began populating types. Lyle worked on it, then Dick, now Joe, and it will go to Sebastian next.

- ~ Stewards are meeting again next Wednesday.
- ~ After everyone does a round of populating the types they hope to go over it and then be done with it all by the end of October.

CCB-268 - Add optional attribute to class DD Permissible Value See https://pds-jira.jpl.nasa.gov/browse/CCB-268

This is a new SCR.

There are a number of instrument types that are close to each other - they have fussy differences. We don't want the top level of search to get false negatives. Want to be able to use the correct type and to associate types to each other for search. We need a way to tie the types together - called it alternate value for now. We need this in the system for the the Instrument Type stewards team to conclude their work by the end of October. This would go in the ingest file. Search tool would need to connect the alternate values together and provide an option to de-select.

Someone would like to see an example of this in Jira. **(Action Item - Lyle)**

Question: Any comments?

Answer: Someone questions if this should be restricted to instrument type, as written it would go to every enumerated list.

- ~ The team should look at terminological entry and see if it solves their problem. It handles alternates.
- **Action Item Lyle** will look at terminological entry and discuss it with **Steve** to get clarity.

CCB-269 - Unexpected Error when Classes are missing from Product SPICE Kernel.Context Area See https://pds-jira.jpl.nasa.gov/browse/CCB-269

Reporter believes this is a bug fix. Was trying to put a leap seconds file in Cassini migrations, but left out target and observing system - which were supposed to be optional, but got errors that they are required.

~ NAIF rejects that this is a bug fix and wants every file to be associated.

The label describes what's in the file, not what's being used.

~ NAIF wants these associations for every single spice kernel label.

There was an email exchange on this. **Action Item -Boris** will send the emails to **Steve** to put in jira. Steve will also check optional versus required to see if this is working as it should.

~ Someone wants to know why the error message is coming up.

~ It's based on schematron.

We will discuss this again.

VI. Future Meetings

In the short term we have some possible conflicts - like DPS. Anne and Mitch will be there. The 19th would be two weeks. Ed is gone next week and won't be able to do any DDWG work. Suggestion is that we next meet on September 26.

~ Anne won't be available.

Question: Does anyone object to meeting on September 26?

Answer: It works for people.

The other issue is that Mars 2020 is heating up and will be having dawg meetings every month on Thursdays and could overlap with our meetings. Propose that we go to the second and fourth Thursdays of the month for our meetings.

Question: Any comments? Answer: No objections.

~ Ed is not available the second Thursday in October. We will discuss that at our next meeting. We will also have an issue with Thanksgiving. The other option is to change the time of our meeting. Ed will send out email about this to start a discussion. **(Action Item - Ed)**

Our next meeting will be September 26. Please check the notes for action items.

Back to CCB-269

Someone looked and there is a schematron rule that things be required for spice kernels. This isn't an unexpected error. We need discussions to resolve the issue.

~ See line 1438 in the schematron.

Question: Do we have similar issues for other things that are optional in model and required in schematron? In this case it comes down to opinions on what's applicable for spice kernels.

Answer: Schematron is part of the model.

~ There really is no error.

DDWG Notes 2019-09-26

title: DDWG Notes 2019-09-26

layout: default date: 2019-09-26

September 26, 2019 Notes by Debra Kazden

Known Attendees: C. DeCesare, M.Gordon, E. Guinness, L. Huber, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson Known Observers: D. Hollibaugh Baker and P. Lawton (alternate for A. Raugh)

DDWG Agenda

(Included in email sent September 24, from E. Guinness, DDWG agenda for Sept 26, 2019)

- I. Continue discussing change requests that were talked about during the last telecon.
- 1) CCB-209 Correct tagged objects. Status from Steve and Dick.
- 2) CCB-138 Mismatch between context object types and values of type in Observing System Component class. Review comments in JIRA for discussion.
- 3) CCB-204 Define and enforce best practices for LDD. Ed sent list of requested changes to Steve. Waiting for feedback.
- 4) CCB-205 Additional constraints/best practices for LDD. See above.
- 5) CCB-208 Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id. Ed initiated an email discuss on this request. Cristina and Ed to work on this.
- 6) CCB-222 Add citation text to Citation Information. Joe to assess status.
- 7) CCB-255 Namespace version dependencies are not documented in IM. Steve and Anne to discuss top two possible solutions.
- 8) CCB-268 Add optional attribute to class DD Permissible Value
- 9) CCB-269 Unexpected Error when Classes are missing from for Product SPICE Kernel.Context Area **(Discussed)**
- II. Review status.
- 1) CCB-202 Instrument type in Context Products We will track implementation status of the LDD.
- **(Discussed)**
- III. Parked
- 1) CCB-186 ASCII String and UTF8 String whitespace handling. Anne will look at this when she has time (not for six weeks).
- **(Acknowledged)**
- IV. Other topics?

1) Ron please delete CCB-270 for Richard.

(Discussed)

VI. Set next telecon date – I will be unavailable Oct 10 and maybe Oct 3. Suggest Oct 17, but there is a Mars2020 DAWG scheduled **(October 17, 10:00 AM)**

DDWG Telecon

We are missing Steve H. today. He is out of the country, but sent email comments.

~ Anne is also not here. Pat Lawton is attending for Anne. Anne sent her comments for today's call.

I. Continue discussing change requests that were talked about during the last telecon

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

This one is to correct some under the hood arrangements in the model. There has been email between Steve and Dick on this. The work is on-going.

Steve sent email to a few people, but they aren't sure they understood it.

~ One recipient was especially confused about the comments on product browse.

We will check status on this again and decide if there is something the DDWG needs to vote on.

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 is a very old one. ATMOS discussed it and posted their comments in jira. Not sure if people have reviewed them yet. ~ The big thing is that Anne is the author, so ATMOS can't edit the SCR. They suggest that the list of types should be reduced down to instrument and instrument host and a few items for strange situations.

Question: Does anyone have any comments?

Answer: Yes. Anne emailed Pat and said that a key detail is how it will be documented for users and also that there's legacy data already migrated.

- ~ Yes, that's part of the TA. Presumably this will not be backwards compatible. This is context stuff. Doubt users would search for this. This is what observing system is for your observation. It only comes down in individual product labels. Not sure users would ever search for this. It's metadata in the product label.
- ~ At a high level in the product label. LIDs would trace back to the context products if more information is needed. Search would depend on how you implement search. We need to consider how we will tell DPs this is what to do.

Question: Is it documented in the SR? Does it go in the schema constraints? We should be telling DPs what they should be doing somewhere.

~ Let's leave this for when Anne is back and see what possible solutions she finds acceptable.

~ Sounds good.

Question: Other comments?

Answer: (Silence)

CCB-204 - Define and enforce best practices for discipline and project dictionaries and CCB-205 - Additional constraints/best practices for discipline and project dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-204 and https://pds-jira.jpl.nasa.gov/browse/CCB-205

Ed went through both of these - checked them, looked at past notes, etc. Compiled all the information and sent it to Steve to see what is already implemented. Steve has not had a chance to look at it all yet. **(Action Item - Steve)**

These SCRs are from before we had a place for software issues. We may want to move these to the git-hub area in the future.

CCB-208 - Add GeoTIFF as a permissible value for the attribute Encoded Image.encoding standard id See https://pds-jira.jpl.nasa.gov/browse/CCB-208

This SCR needs revision and there's a possibility there will also be a new SCR. We need to decide if it's reasonably formatted if it can be 2D or 3D array image. Ed and Christina still need to review it. **(Action Item)**

This is creeping up on the IMG priority list. There is a DP who needs to archive GeoTIFF observational products. IMG will discuss it with Trent. **(Action Item - Christina)**

Question: Is there a standards document?

Answer: Trent said there is. Ed put Trent's comments and a link to the standard in jira.

~ People should look at that. **(Action Item)**

Question: Other comments?

Answer: (Silence)

Christina will take the lead on this.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

Joe hasn't had time to work on this yet, but it has worked it's way to the top of his priority list. He hopes to have something in the very near future.

CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

Anne and Steve are working on this one. Anne reported (to Pat) that she gave Steve a mock up, but she hasn't received any comments from Steve yet.

~ It was suggested that maybe Anne should let Steve know that she's waiting on him. **(Action Item?)**

CCB-268 - Add optional attribute to class DD Permissible Value See https://pds-jira.jpl.nasa.gov/browse/CCB-268

Steve suggested the team look at terminological entry.

~ The team will probably go with that, but still might need some changes. CCB-268 is on hold for now, but it does need to be taken care of.

CCB-269 - Unexpected Error when Classes are missing from Product SPICE Kernel.Context Area See https://pds-jira.jpl.nasa.gov/browse/CCB-269

There was a discussion between Dick and Boris about how the context area should be for SPICE kernels on our last telecon.

- ~ They have not talked since that time.
- ~ No progress has been made. Will need arbitration.
- ~ Someone isn't sure who the arbitrator would be.

The question is that since it's not an error... (interrupted) ~ It is, a bug fix.... (interrupted) ~ Someone completely disagrees. It is not a bug or an error.

If this doesn't get resolved then some products will have to be archived as something other than product SPICE kernel.

- ~ That's fine.
- ~ But the underlying problem will still be there. The issue is what the context area is supposed to do for the product it's describing.
- **Action Item Ed** will think about an arbitrator for this one.

II. Review status

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

The stewards team had a telecon yesterday. They are making progress on the ingest LDD. It's in Sebastian's hands now for edits. The team hopes to have a version 1.0 out around October 10. It won't include the solution for associating types with each other yet, but Version 1.1 will address that.

~ Sounds close.

Question: It's six months to the next build. Can this be added to the build in progress now?

Answer: We'll see. Not sure what the process is.

Question: Other comments?

Answer: (Silence)

III. Parked

CCB-186 - ASCII String and UTF8 String whitespace handling

See https://pds-jira.jpl.nasa.gov/browse/CCB-186

This is parked for now because Anne is too busy to work on it yet.

IV. Other topics?

Richard Chen accidentally put an SCR in jira (CCB-270). It was meant for the software people, not for the DDWG. He added to it a note to ignore it. Would like it to be deleted.

Action Items - Ed will send formal request to remove the SCR in an email to **Ron** and he will make sure it's removed.

VI. Set next telecon date

Ed is not available the next two Thursdays. We could still meet if someone else wanted to take the lead. It would be okay for Ed if we met on October 17, but there is a Mars2020 meeting that day too and the times overlap. Most people were okay moving the time we meet a half hour later, but it's difficult for Dick. We could meet a half hour later every time there's a conflict.

~ Let's just do that.

Question: Can people live with that?

Another Question: How often are their meetings?

Answer: Once a month, usually the first Thursday of the month.

Our next meeting will be October 17 at 10:00 AM.

- ~ We will try to continue meeting every other week when we can.
- ~ Dick is not available October 17. Has an all day Mars Express meeting.
- ~ Debra is not available to take notes October 17. We will need a volunteer.

Before we wrap up there is a question about inventory tables from NSSDCA.

The PDS SR says that in an inventory table, primary products need a LID and VID, but secondary products only need a LID. Couldn't find an explanation of this in the SR. The SBN wiki says no VID implies the most current version. NSSDCA wants to confirm this.

~ Yes.

Maybe we should update the SR to say why we might not include the VID.

~ Not sure it's actually stated anywhere, but if there's no VID it implies use of the latest version.

DDWG Notes 2019-11-14

title: DDWG Notes 2019-11-14

layout: default date: 2019-11-14

November 14, 2019 Notes by Debra Kazden

Known Attendees: C. DeCesare, M. Gordon, E. Guinness, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, A. Raugh and R. Simpson Known Observers: P. Lawton

DDWG Agenda

(Included in email sent November 12, from E. Guinness, DDWG telecon agenda for Nov 14)

- I. Continue discussing change requests that we hope to finish by next build deadline.
- 1) CCB-138 Mismatch between context object types and values of type in Observing System Component class. TA is done with one lien. We plan to vote on this solution.
- 2) CCB-204 Define and enforce best practices for LDD. This a software issue and not a DDWG issue, unless Steve finds that a model change is needed.
- 3) CCB-209 Correct tagged objects. Status from Steve and Dick.
- 4) CCB-212 Add Modification History to Ingest LDD. Discussions were held at the MC meeting. Mitch to present the current status on this issue.
- 5) CCB-220 Add ability to specify many source products via table. A telecon to be held on Nov 13.
- 6) CCB-222 Add citation text to Citation Information. Joe working on this.
- 7) CCB-255 Namespace version dependencies are not documented in IM. Steve and Anne to discuss top two possible solutions.
- 8) CCB-260 PDS4 label files do not have a unique file extension. This is needed to be able to archive xml files and possibly ingest LDD files.
- 9) CCB-268 Add optional attribute to class DD Permissible Value. TA is done. We plan to vote on this solution.
- **(Discussed Voted to Pass CCBs 138 and 168 to the CCB)**
- II. Review status.
- 1) CCB-202 Instrument type in Context Products Track implementation status of the LDD.
- **(Discussed)**
- III. Parked
- 1) CCB-186 ASCII String and UTF8 String whitespace handling. Anne will look at this when she has time.
- 2) CCB-205 Additional constraints/best practices for LDD. See above.

3) CCB-264 Make Line Feed an allowable record delimiter. MC discussed this at F2F. **(Brief Discussion)**

IV. Other topics?
(Yes)

VI. Set next telecon date – Suggested dates: Nov 21, and Dec 12 (maybe), 19. **(November 21)**

DDWG Telecon

No one from NAIF or IPDA is on the call today. We will wait for the items to vote on to give them a chance to arrive...

I. Continue discussing change requests that we hope to finish by next build deadline.

CCB-204 - Define and enforce best practices for discipline and project dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-204

The TA has been updated. Software issues are being worked on - they will be submitted to software jira. Will bring the topic back to DDWG is there are any DDWG impacts.

We might move this down in the agenda until we hear if this impacts us.

CCB-209 - Correct Definitions of Tagged-*-Object See https://pds-jira.jpl.nasa.gov/browse/CCB-209

Emails have been exchanged, but no progress yet.

CCB-212 - Add Modification History to Ingest LDD See https://pds-jira.jpl.nasa.gov/browse/CCB-212

There has been some progress on this. People met to discuss this at the F2F. They came up with ideas. Might not be ready for prime time yet.

Tiger Team is working on a draft for the team. Will send it to the DDWG soon. Looks like the proposed solution will also effect CCB-210 (Need to preserve the Ingest LDD file as part of a PDS4 Product, see https://pds-jira.jpl.nasa.gov/browse/CCB-210) Not sure if we will want a new SCR. A long time ago there was a stewards meeting where lots of SCRs were written and went into jira. They were assigned to the person who put them in to solve.

Question: Are comments coming in from the team?

Answer: **Action Item - for the CCB-212 Tiger Team** - send comments to Mitch.

CCB-220 - Add ability to specify many source products via table See https://pds-jira.jpl.nasa.gov/browse/CCB-220

There was a telecon yesterday. Some progress was made. Christina is waiting for comments.

~ The team settled on an approach from the two options in jira. Not doing the new product class. Will use custom version of table delimited. Working on example, new schematron rules. Will update jira soon for the DDWG to look at.

Question: Anything else?

Answer: Nope.

CCB-222 - Add citation text to Citation Information See https://pds-jira.jpl.nasa.gov/browse/CCB-222

No update at this time.

CCB-255 - Namespace version dependencies are not documented in the Information Model See https://pds-jira.jpl.nasa.gov/browse/CCB-255

This was going to be discussed at the F2F.

- ~ People forgot all about it.
- ~ Discussed other things.

Unclear why this needs discussion. Thought there was a solution.

- ~ There were two solutions.
- ~ Converging on what needs to be in the label. Close.

Question: Can the team work by email to come up with one proposal?

Answer: Yes. **(Action Item - Steve and Anne)** ~ Anne is on vacation until the end of the year.

- ~ That doesn't mean much.
- ~ Try to make progress.

CCB-260 - PDS4 label files do not have a unique file extension See https://pds-jira.jpl.nasa.gov/browse/CCB-260

Unclear if there's a plan to work on this one.

- ~ We need Jordan for this. He's on vacation. This needs to be coordinated with him.
- **Action Item Ed** will send email to Jordan to get him involved in this.

NAIF and IPDA are still not here, but we should still try to vote on CCB-138 and CCB-268.

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

There are a few comments in jira that have been responded to. There is a TA. Work has been done to remove the comments.

~ The response to the comments made someone think they were looking at this backwards. Observing system product and context - this decouples them.

If a host is not holding an instrument, not sure how you manage that.

- ~ In GEO's product labels in the Observing System Component you have reference types that are higher level indicators. The details are in the context products.
- ~ Agreement.
- ~ But I don't think reference types have to be exact matches.

Question: Will there be validation with LIDs? There's a software impact.

Another Question: Are you saying software would validate against context products?

Answer: Yes. Could validate the right label type based on context type, maybe even with LID. If we're going to have type attribute or LID, we should validate it to make sure no errors, but validation would have to be hard coded. Wondering if something like this is going in the validation tool or if there's an SCR to write the software.

~ The later. Last time Jordan tried to put name versus context product someone objected. There had been no discussion of the consequences. We could raise this as a software issue in git-hub.

Question: Has the software jira been abandoned?

Answer: Someone thinks Jordan is migrating to git-hub.

Another Question: Part of the technical implementation or do we need to file a separate issue for validation?

Answer: We would need to submit the issue to software jira - assuming we need a software solution. Could see maybe that we could do it with schematron - make sure the type we're seeing is the type in the context product. Other then that it's a software issue.

Another Question: Fine, but it's necessary to implement the full solution, so shouldn't it happen automatically? Answer: We're going off course.

- ~ It's a policy issue. We need validation.
- ~ On to something. The issue is how we trigger things to go into software changes. Maybe in the requested changes section in jira.
- ~ Impacts need to include system software. If tools are checked in jira, that should trigger some action at EN to pass the word along.
- ~ We don't have that now. Don't want to stop all progress now. Submit something to git-hub for validate. Could reference this SCR to show why we want this.

Question: Isn't the real solution to check the box that asks if tools will be impacted?

Answer: That won't get the software team to do what we want them to do.

- ~ It's part of implementation.
- ~ Not our job.
- ~ It might end up back in the DDWG if there's no validation. Kind of like CCB-202.

Not sure what we should do. We can vote or not. This is a way forward. This is the system we have now.

Action Item - Steve will insert the issue in git-hub. Using the system we currently have so we can move forward.

Question: Is that acceptable to people?

Answer: Yes.

**The Vote for CCB-138

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

PPI - Yes

Rings - Yes

RS - Abstain

SBN - Yes**

That's 7 yes, 1 abstain and 2 no votes.

Action Item - Ed will send the results of the vote(s) to Ron in an email

CCB-268 - Add optional attribute to class Terminological Entry See https://pds-jira.jpl.nasa.gov/browse/CCB-268

This is to add the optional SKOS element to terminological entry to support the instrument type LDD. There's a TA. No liens or new comments in jira.

Question: Any comments before we vote? Any objections to voting?

Answer: (Silence)

**The Vote for CCB-268

ATMOS - Yes

IMG - Yes

EN - Yes

GEO - Yes

PPI - Yes

Rings - Abstain

RS - Yes

SBN - Abstain**

Six yes, 2 abstain and 2 no vote.

II. Review status.

CCB-202 - Amend the Instrument Class Context Product See https://pds-jira.jpl.nasa.gov/browse/CCB-202

We are close on the initial version of the instrument type LDD.

Question: Are there any comments from the team?

Answer: It will be sent out early next week. The only comment received has been dealt with. Will submit the ingest LDD to Ron to turn on the magic.

III. Parked

CCB-186 - ASCII String and UTF8 String whitespace handling See https://pds-jira.jpl.nasa.gov/browse/CCB-186

No progress on this one yet.

CCB-205 - Additional constraints/best practices for discipline and project dictionaries See https://pds-jira.jpl.nasa.gov/browse/CCB-205

Discussion of this one will come off the agenda.

CCB-264 - Make the Line Feed (LF) character an allowed record delimiter See https://pds-jira.jpl.nasa.gov/browse/CCB-264

The MC was asked for guidance on this one. There has been no official response yet.

Someone who was in the executive session says the vote occurred and the vote to proceed with the SCR was at least six to one to go ahead with this SCR.

~ We will leave it until the official notes come out.

In jira comments, clarifications were requested - no response yet. Was asking questions about Mark's examples.

Action Item - Mitch will send Mark email to try to get a response to the questions.

IV. Other topics?

There is a new SCR (CCB-271 - Add appropriate reference type values for Product Ancillary, see https://pds-jira.jpl.nasa.gov/browse/CCB-271) from Susie. We won't add this to our list yet, but please everyone review it when you get a chance **(Action Item - Everyone)** We will hopefully be able to bring it to the table before the next build.

Question: Next build date?

Answer: The usual form was filled out for Jordan to ask. No official answer yet, but thinks it's March 27. We still need the cut off date.

CCB-270 was removed.

Someone believes that February 14 is the cut off date for all new SCRs.

~ That's bad timing with the senior review.

That will be two years of Ed being the DDWG chair. Our charter says it's a two-year appointment. We need a new chair in that time frame. If anyone is interested in being the next chair they should contact Jordan.

- ~ In the executive session a name was put forward someone who is not on the DDWG yet.
- ~ Not sure the MC has a role in the DDWG charter.
- ~ PMs are in there.

Would like for us to meet again next Thursday. Hopefully we will have some things to talk about. If people are working on SCRs - you heard the deadlines. There's not a lot of time considering the holidays and our other responsibilities.

VI. Set next telecon date

We have meetings scheduled November 21, December 12 and December 19. Maybe we want to schedule more. ~ Ed is not available December 5. December 12 is a maybe because of AGU. The 19th of December is next. We will take a poll next time to see if we will meet December 12. In December we will pick January dates. Maybe every week starting in January.

Question: Any other comments?

Answer: (Silence)

DDWG Notes 2019-12-11
From: guinness@wunder.wustl.edu
To: pds-ddwg2@list.jpl.nasa.gov
Subject: DDWG agenda for Dec. 12
Date/Time: 2019-12-11T11:33:00 PST
All,
We will have a DDWG telecon this Thursday, Dec. 12 at 9:30 PT (12:30 ET) – normal telecon time. Attendance may be limited because of AGU meeting. Change Requests need to be finalized and approved by mid-February to make the next build. Call-in information is listed at the bottom of the agenda.
Notes from the meeting have been inserted into the agenda in red; action items are in bold .
Chair Ed Guinness called the meeting to order at 17:32 UTC.
Attendees: David Hollibaugh Baker, Cristina de Cesare, Mitch Gordon, Ed Guinness, Lyle Huber, Ron Joyner, Tanya Lim, Joe Mafi, Stef McLaughlin, Anne Raugh, and Dick Simpson. Steve Hughes is unavailable. All nodes were represented except NAIF.
The deadline for the next build is mid-February.
Trent Hare will be the next DDWG Chair, probably starting in March.
There is one new SCR (CCB-274); Ed has raised priority of a couple others.
Agenda
I. Continue discussing change requests that we hope to finish by next build deadline.
1. CCB-210 and CCB-212 – Preserve Ingest_LDD file as PDS4 product and Add Modification_History to Ingest_LDD. Discussions were held at the MC meeting. New ticket to be added to merge these because they are closely tied together.

Mitch has been leading this effort; he has added some comments and is working on a new SCR that will combine CCB-210 and CCB-212. He should have more done by next week. Mitch has not received any feedback from his working group since distributing a document on November 20. **Ed suggested sending it again with a reminder about feedback; Mitch will do that.**

2. CCB-220 – Add ability to specify many source products via table. Working group reviewing proposal so that ticket can be updated.

Cristina said SCR status has not changed within the working group, though Tanya sent her an e-mail a few minutes before the 4telecon. **Cristina needs to update examples and the JIRA entry, and she will notify DDWG when ready**. This could be open for DDWG discussion next week.

3. CCB-255 – Namespace version dependencies are not documented in IM. Need Steve and Anne to agree of one proposed solution so that the rest of DDWG can review and comment.

Steve and Anne have offered competing proposals; they have since hammered out a common solution. **Anne will write the detailed description of the class to be created.** It will be entered into JIRA when ready. This could be ready for the next build, but not by next week.

4. CCB-260 – PDS4 label files do not have a unique file extension. This may be needed to be able to archive xml files and possibly ingest_LDD files. I asked Jordan and Anne to discuss software issues related to using a new extension for PDS4 labels.

There have been various discussions. There are significant design and software implications. Jordan Padams thinks the change itself is technically easy, and Anne agrees; but she believes that an implementation plan will be needed. **She will try to reach Jordan while both are at AGU to discuss issues further**. Ed does not believe getting this into the next build is critical; it needs to be done right rather than quickly.

5. CCB-264 - Make Line Feed an allowable record delimiter. MC voted to allow DDWG to proceed. Who wants to be the lead? Need to decide which product classes can use this, change the delimiter list, and add a software ticket.

MC voted that DDWG could work on this without endorsing specific changes; MC vetoed a similar proposal several years ago. Ed thinks that questions needing attention include which product classes will be affected, exactly what change(s) should be approved, and what software/tools will be affected. Ed asked for volunteers for the working group, but didn't get any. Lyle thinks CCB-264 contains everything that needs to be changed and that a working group is not needed. Dick suggested a study of how broadly this change would apply (Table_Delimited, labels, Stream_Text, ect.). Joe recounted some of the history leading to the previous MC veto. Ed will look into and document the history; he may have something next week.

6. CCB-271 – Add reference_types for Product_Ancillary. DDWG was requested to review and comment on proposed solution. No additional comments have been added. Can we move this forward?

Dick has commented in JIRA on the general and recurring problem of newly needed <reference_type> values; no one else has commented. **Ed will ask Steve to do a TA so that we can vote next week.** Mitch suggested that Dick's comment be carried forward; a general solution is needed. Anne added that she has submitted similar comments, and Ed noted that there is already documentation in JIRA.

7. CCB-272 – Reinstate Array_1D. Please review and comment on this request.

Ed doesn't remember why Array_1D was removed, but Steve wants to put it back now. **DDWG should review what is in JIRA** to become familiar with the issue.

8. CCB-273 – Remove permissible values from id_reference_type. Steve has changed the request. Please review and comment on this request.

CCB-273 relates to Composite_Structure and has been revised significantly since the SCR was originally posted. Ed does not think that every discipline can include <id_reference_type> in its LDDs; for example, some don't have LDDs. **DDWG** should review. Anne wasn't familiar with <id_reference_type>; it is unique to Composite_Structure.

9. Possible bug in validating LID formation rule in lid_reference and lidvid_reference. These are defined as data_types ASCII_LID and ASCII_LIDVID. However these data_type do not have a schematron rule to enforce only using lower cases letters as is the case for the schematron rules of logical_identifier, which has a data_type of ASCII_Short_String_Collapsed.

This is a comment from Ed, who found an upper case letter in a Target LID. Validate does not catch upper case letters in lid_reference and lidvid_reference. Ed wondered whether this should be a bug report or an SCR. Mitch and Anne felt that schema checks of LIDs and LIDVIDs for case would be appropriate and that such checks should be automatic. **Ed will work with Steve on a path forward.**

- II. Review status.
- 1. CCB-138 Mismatch between context type and observing_system_component type. CCB asked for the ticket to be updated. Lyle made updates.

CCB had a lengthy discussion; members asked DDWG for more information, and Lyle has made the requested changes to the SCR. There are no edits to Requested Changes, so Lyle and Ed do not believe a new vote by DDWG is needed. **Ed will work with Steve Joy to get this back to CCB.**

2. CCB-202 Instrument type in Context Products. Ingest_LDD submitted to EN. Is dictionary operational? Do we still need to track this?

The LDD has been posted and placed on-line. Dick said that using the LDD is a little tricky, but Ron helped him with an example. Anne asked for an expansion of the namespace acronym (CTLI = Context Type List — Instrument). Anne asked whether there is anything on GitHub or any documentation on use and interpretation of enumerated values. **Ed said Anne should ask Jordan these questions;** Jordan has been pushing improved documentation across PDS. There was discussion about whether this LDD was like any other LDD since it contains only enumerated values. Lyle said, as Steward Team Lead, he is willing to work on documentation, but he has not done LDD documentation previously and doesn't know what should be included. Anne said she has several examples on her wiki; Cristina said there is a documentation template on GitHub. **Dick will distribute his Instrument example to the DDWG e-mail list.**

3. CCB-204 - Define and enforce best practices for LDD. Steve is tracking this as a software issue. If Steve finds that a model change is needed, the DDWG will get involved.

Ed doesn't see a need for DDWG involvement at this stage.

- III. Parked until Jan 2020.
- 1. CCB-186 ASCII String and UTF8 String whitespace handling. Anne will look at this when she has time.
- 2. CCB-205 Additional constraints/best practices for LDD. This probably will be done after build deadline.
- 3. CCB-209 Correct tagged objects. Status from Steve and Dick.

Steve and Dick are working on CCB-209, and Ed has seen some of the recent exchanges. Among other issues, Ed doesn't understand why Product_Observational is nondigital in Steve's prototype IM Spec.

4. CCB-222 – Add citation text to Citation_Information. Joe working on this.

Mitch added a comment to JIRA, which he thinks will simplify this; all we need to validate is that <reference_text> is present. Anne said we need more. We can't validate string text, but we need to validate values here to generate <doi>values automatically; there is no other information source for <doi>. Mitch didn't realize that <doi> generation was a driver behind this SCR.

VI. Set next telecon date –Suggested date: Dec 19 and Jan 9.

A telecon on December 19 was confirmed. There will be no telecon on January 2 because many will still be on extended holiday breaks. Starting January 9, DDWG members should expect weekly telecons until the next build freeze; telecons that are not needed can be canceled.

If you can't attend Thursday, please pass this message to your backup person.

Adjourned at 18:20 UTC.

Thanks,

Ed

Join WebEx meeting

Meeting number (access code): 905 812 392

Join by phone

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DDWG Notes 2019-12-19

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To: pds-ddwg2@list.jpl.nasa.gov

Cc: Trent M Hare, 'Mark Bentley (external)'\

Subject: DDWG agenda for Dec. 19

Date/Time: 2019-12-17T07:51:00 PST

All,

We will have a DDWG telecon this Thursday, Dec. 19 at 9:30 PT (12:30 ET) – normal telecon time. Change Requests need to be finalized and approved by mid-February to make the next build. Call-in information is listed at the bottom of the agenda. Notes from the meeting (in red) are interleaved with the agenda; action items are in **bold red**.

Attendees: Mark Bentley, Cristina de Cesare, Mitch Gordon, Ed Guinness, Trent Hare, Lyle Huber, Steve Hughes, Ron Joyner, Pat Lawton, Stef McLaughlin, and Dick Simpson.

Ed Guinness called the meeting to order at 17:33 UTC; he mentioned that Trent will be taking over as DDWG Chair in March.

Agenda

- I. Continue discussing change requests might make the next build deadline.
- 1. CCB-210 and CCB-212 Preserve Ingest_LDD file as PDS4 product and Add Modification_History to Ingest_LDD. New ticket to be added to merge these because they are closely tied together. Mitch distributed draft proposal again. Please comment on it.

Mitch submitted CCB-275, which is intended to supersede CCB-210 and CCB-212. Dick submitted comments to JIRA last night, but there has not been much other response so far. There will be Tools changes; there may need to be updates to the DPH and Anne's wiki. **DDWG should review the new SCR and send comments, especially regarding things that may be missing.** Jesse Stone provided useful suggestions on generating regression tests.

Ed asked whether a solution to CCB-260 is needed for CCB-275 to go forward. The ingest file is XML and its label will be XML, so how to archive these digital objects needs thought. Mitch's three proposed attributes will not be backwards compatible. Steve said he has tried to make LDDTool backwards compatible regardless of other issues, so there is possible contention here. Mitch asked whether LDDTool can be run against earlier versions of the IM rather than defaulting to the current version; Steve said EN is working on this.

2. CCB-220 – Add ability to specify many source products via table. Working group reviewing proposal so that ticket can be updated.

Cristina made updates to the SCR last evening. She replaced old examples with new ones; there are now four examples — two showing implementation of new classes, two showing possible uses. She renamed classes, added new Schematron rules, and added new reference_types. She needs to add the required documentation changes. **DDWG** should review what is in place and send her feedback.

3. CCB-255 – Namespace version dependencies are not documented in IM. Steve and Anne agreed on one proposed solution. Anne to update ticket with definition of new class.

Nothing new; Anne not on call.

4. CCB-260 – PDS4 label files do not have a unique file extension. This may be needed to be able to archive xml files and possibly ingest_LDD files.

Nothing new; Anne not on call.

5. CCB-264 - Make Line Feed an allowable record delimiter. Ed reviewed the previous ticket (CCB-90) and classes where record_delimiter is used in the model. Results are posted in JIRA.

Ed revisited CCB-99, which was a previous request for a similar change. He found half a dozen classes that would be affected if the change applied to all classes. Dick commented that it would be terrible if only some were changed. Lyle favors making this change everywhere as soon as possible. Mitch asked Steve about the Tech Assessment; this change is not necessarily backwards compatible for users. **Steve will note that in the TA.**

6. CCB-271 – Add reference_types for Product_Ancillary. Asked Steve to do a TA.

There have been no substantive comments, and there was no objection to a vote. The vote:

Yes: Huber, de Cesare, Hughes, Guinness, Bentley, Gordon, Simpson

No: none

Not Voting: NAIF, PPI, SBN

Ed will ask Ron to forward CCB-271 to the CCB.

7. CCB-272 – Reinstate Array_1D. Asked DDWG to please review and comment on this request. Anne posted a request for use cases.

There have been several comments posted to JIRA. Dick feels that Steve's comments over time have been inconsistent. Steve defended his positions; we now have more clear reasons to have Array_1D. Having Array_1D would mean that current errors would be caught in metadata validation rather than in execution; but Dick countered that one of Steve's examples resulted from a typo, and that trying to protect generally against typos is a waste of time. Lyle said further discussion without PPI is not productive; but Steve said the current need comes from ExoPlanet and PSA, not PPI. Mitch said Array_2D and Array_3D were retained several years ago because they had subclasses, whereas Array_1D did not (and it was deprecated). Ed will check with PPI for input.

8. CCB-273 – Remove permissible values from id_reference_type. Steve has changed the request. Please review and comment on this request.

Ed said this SCR has changed since it was first submitted. Mitch, Ed, and Dick have concerns about the current version because it pushes 'type' to discipline level dictionaries. Steve argued that most use of Composite_Structure has turned out to be at the discipline level, software is being developed at the discipline level, and that it makes sense to have 'type' defined there; Mitch said he is using Composite_Structure and he has no need to define anything in his discipline dictionary. Ed said CCB-273 will need more thought; he will ask for input from PPI.

9. Possible bug in validating LID formation rule in lid_reference and lidvid_reference. These are defined as data_types ASCII_LID and ASCII_LIDVID. However these data_type do not have a schematron rule to enforce only using lower cases letters as is the case for the schematron rules of logical_identifier, which has a data_type of ASCII_Short_String_Collapsed. – Bug fix or model change.

Ed has raised this as an issue without submitting an SCR, and it was discussed briefly at the last meeting. He sent Steve an e-mail asking for recommendations on how to proceed. Steve has not had a chance to think about it.

10. CCB-274 – Add attribute mission_flag_ldd to Ingest_LDD. Seems to be straight-forward request. Please review and comment in JIRA.

There have been comments submitted to JIRA; one was that mission_flag_ldd is not a good solution; a more direct solution would be to require an attribute that would specify the type of dictionary rather than whether it is or is not a mission LDD. **Steve is willing to revise CCB-274 according to Mitch's suggestion.**

- II. Review status.
- 1. CCB-138 Mismatch between context type and observing_system_component type. CCB voting again on this request.
- 3. CCB-204 Define and enforce best practices for LDD. Steve is tracking this as a software issue. If Steve finds that a model change is needed, the DDWG will get involved.

III. Parked until Jan 2020.
1. CCB-186 - ASCII String and UTF8 String whitespace handling. Anne will look at this when she has time.
2. CCB-205 - Additional constraints/best practices for LDD. This probably will be done after build deadline.
3. CCB-209 - Correct tagged objects. Status from Steve and Dick.
4. CCB-222 – Add citation text to Citation_Information. Joe working on this. This ticket is important for providing data for DOIs.
Joe and Anne discussed CCB-222; the changes required to support DOI assignment may be bigger than what was being considered, so the path forward seems less clear than it was previously.
IV. Other topics?
VI. Set next telecon date –Suggested date: Jan 9 and then weekly in Jan and early Feb as needed.
Next telecon is January 9, then expect weekly meetings possibly into mid-February so DDWG has time to work through SCRs that should get into the next build.
If you can't attend Thursday, please pass this message to your backup person.
Adjourned at 18:13 UTC.
Thanks,
Ed
Join WebEx meeting Meeting number (access code): 905 812 392
Join by phone

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