

Meeting Minutes from the DDWG telecons:

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DDWG Notes 2024-01-04

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January 4, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, L. Huber, T. Hare, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson
Known Observers: A. Bailey, P. Lawton, M. McAuley, J. Padams, E. Schaefer and M. Tiscareno

DDWG Agenda

(Included in email sent January 2, from M. Drum, Agenda for January 4, 2024)

Front-matter/What's new

1. We're moving to GitHub: [https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/issues_!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4q wz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTqQH_p0qPTM\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/issues_!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4q wz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTqQH_p0qPTM$)

a. New issues should go there; active ones may need to be copied b. Jira is being frozen tomorrow (01/05) c. Jira will be migrated to new instance and shut down by next meeting d. Proposals from the F2F have been created there 2. DDWG Chair: Give congratulations/condolences to Joe Mafi!

3. SCR Freeze date: 2/12/24

(Discussed)

Ready for Vote

CCB-358 – Instrument Package Context products – Matt Tiscareno/Mike Drum

- The question around definitions seems to have been a misunderstanding, so no changes were made there
(Voted to pass)

Tier 1 issues

~ (New issue) Define “backwards compatibility” and how it works with major version transitions.

~ CCB-356 – Update Constraints on Author/Editor Lists (Ron Joyner)

- Discuss next steps

~ CCB-366 – Schematron/Schema Version Conflict

- Need volunteer to provide language for SR ~ CCB-367 – Provenance LDD Using PROV-DM – Steve Hughes

- Still looking for use cases

~ CCB-164 - Display Settings not required for images -- (IMG)

- Trent will take another look at this

- One issue was the one-to-many reference to make sure it made sense for multiple image objects

~ CCB-211 – XML/schema based files as archival data – Jesse Stone, Mike Drum

(Some Discussion)

Tier 2 issues

~ Product Metadata Errata?

- Create a supplemental label to live next to original label, that can add aliases and supersede metadata

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

Parking lot – need a driver!

~ CCB-326 - Inconsistent Direction on How to Use Discipline Facets ~ RS: 259/281 (see new attachment to CCB-281) (on hold) ~ CCB-364 – Disallow bundles referencing collections by LID ****(Not Discussed)****

Next meeting: 1/18/24

DDWG

Front Matter

Everyone should have gotten email from Jordan. Let Mike know if you didn't. It has instructions to get on-boarded for the new GitHub and a time line for the transition. They are freezing jira tomorrow. Tickets will be migrated. Will be available to a few people.

Question: Are people responsible for migrating their own tickets or is EN responsible?

Answer: Someone believes EN is handling it, but it hasn't been discussed. People might want to move anything urgent themselves.

~ Some EN folks just met and discussed this. Tickets are being moved as needed. They didn't discuss who would do it.

~ It's tricky because it's a manual process. No need to move everything at once. Think migrating the ones needed now is a good plan.

~ EN folks talked about dumping them all into an Excel sheet or something.

~ Mike actually did that, but it doesn't include all descriptions and everything.

~ We would want a complete dump.

~ It will be figured out.

~ Someone is worried because GitHub doesn't have all the features we are used to.

~ If someone could write up how to do it... Guidelines, so we can make sure people do things in a similar way.

~ Good idea. In the meantime, if people want their ticket moved they should reach out to Steve, Ron or Jordan.

Joe Mafi will be the new DDWG chair after the next build freeze. We want to thank Joe for taking this over. The next freeze, for version 14.1, is February 12. Only a handful of meetings before that. We should discuss goals today.

~ Congratulations to Joe, although he's been around long enough to know better.

~ Thanks to Mike for all his work. We are in good shape, although it looks like we have some changes ahead.

~ Mike is getting out while it's still easy. Will still be around as a passive voice. Voices thanks to Joe. One of the last things that Mike would like to tackle is backwards compatibility. Wrote a presentation on his view and how he thinks it should work.

Ready for Vote

CCB-358 – Instrument Package Context products We actually need a new title for this ticket. Will discuss that later. Deprecated format, not backwards compatible. Checked history and saw there was some remaining confusion around things like granularity. Spent time yesterday changing the definition of type. Checked the examples. Would like to know if there are any questions.

~ (Silence)

~ Matt isn't here yet and he is a big part of this ticket.

Question: Any last comments before we vote?

Answer: (Silence)

**The Vote for CCB 358

ATMOS - Abstain

EN - Yes

GEO - Abstain

IMG - Yes

IPDA - Not Here

NAIF - Abstain

PPI- Yes

RMS - Not Here

RS - Abstain

SBN - Yes**

A lot of of abstentions and people absent, but it looks like a pass.

General Question: What's the precedence for un-depracting?

Answer: We did it once - for array 1D.

~ Someone will write something up to do with spectral.

~ Good Question. We should discuss backwards compatibility.

Tier 1

Backwards Compatibility

Mike's Backward Compatibility Presentation.

(There is a link to the slides in the agenda)

Slide 1 - Problem Statement

~ We need to be wary of making incompatible changes to the IM. Heavy impact. There are tools to help, such as the deprecated flag to work with or the nodes working with DP's, semantic versioning and having major versions.

Slide 2 - The Backwards Incompatibility Process - from Python backwards compatibility rules.

Source: [https://urldefense.us/v3/https://peps.python.org/pep-0387/*backwards-compatibility-rules_/lw!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4qwz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTqQH1xaKRW2\\$](https://urldefense.us/v3/https://peps.python.org/pep-0387/*backwards-compatibility-rules_/lw!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4qwz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTqQH1xaKRW2$)

Slide 3 - Proposal

Will turn this into a ticket about how the DDWG should approach non-backwards compatible changes in all versions going forward. Would have semantic versioning and a cadence for new versioning. Includes a process for when to make non-backwards compatible changes.

Question: Two minor releases, not point releases?

Answer: Right. That refers to semantic versioning.

~ Someone said they are losing their understanding of major and minor versions. Things are getting fuzzy here.

~ Semantic versioning would get rid of the third digit of our four digits. 1.14.0.0 would become 1.14.0.

The fourth zero was for patch. In that type of release - could adopt backwards incompatible changes, which we have been doing. The idea, generally, had been after version 2.0 that there would be no backwards incompatible changes. Would lose transition periods. Would only have major versions. More of a burden. The hope is to rethink the idea that we would never do backwards incompatible changes.

~ So, basically, if we want to introduce something, we would deprecate something, then it would sit there for many minor versions and at the next major version it wouldn't work anymore. Think we are saying things will be deprecated awhile and then go away.

~ Correct.

Question: But if we can do the old way and the new way - is that backwards compatible?

Answer: This is where the language has tripped us up.

~ So, temporarily compatible until remove the deprecation. Don't understand why we would do major versions where there's no change that requires it.

~ Fair comment. Concern is that we don't want a new version every time there's an incompatible change.

~ Someone doesn't think there will be that many. This is the first.

~ Someone else thought we were going to look at it every few years to assess the necessity.

~ That's different. Accessing is fine.

~ We should know ahead of time if something will be backwards incompatible.

Another point, in the process of proposing a non backwards compatible change - need a robust explanation of why it's necessary and an assessment on the impact of the change. Need to make sure we really need to have it if we will need to change pipelines and re-migrate.

~ Need to prove it's necessary. That should be elevated several magnitudes.

~ Someone agrees. It will be hard to come up with rules for justification, but that's part of the ticket.

Need to weigh if the new thing meets needs, is too big a burden, etc. On the point of major versions, will be it's own ticket because it will be a whole thing. We have discussed it. Sees it as very important that new DPs aren't coming into a model full of old, redundant features. Need to assess needs. Not saying we have to do it to do it, but think it's our job to improve the model when we can. Two to three years is speaker's expectation of how often we would need to do it.

Every time there's a major version there is an impact, so we are kicking the can down the road. The model just keeps getting more complicated. Nice to wipe the board clean, but there will be impacts.

~ Always impacts no matter what. Yes, kicking the can, but showing people, warning them that this is coming. Another possibility besides time frequency is number of incompatible changes. (See the chat at the end of the notes).

~ Good call. Can pick a threshold.

Another issue might be the need to have a way for community communication, for feedback and to advertise how people outside the DDWG can register their concerns.

~ Someone agrees.

~ Something trackable.

- ~ We could do something with mailing lists to notify people. Could create a PDS4 users list.
- ~ Someone doesn't have any good ideas for solutions, but thinks we should have something.
- ~ Another person likes the idea of a feedback portal on the model, what the models needs, etc. This can be turned into a new issue on GitHub so we continue the discussion.

Question: Looking at 4A in presentation, new class a new member, so assumes there would be a new schematron rule, right?

Answer: Yes. Would not make it required at time of adoption, but at major.

Another Question: Is there a way to trigger a warning that something will be removed?

- ~ That's what someone was getting at...
- ~ The new chair of the DDWG should collect all of this feedback.
- ~ New chair strongly disagrees.

Someone had two philosophical notes. First, appalled that we treat the archive as something to change every few years. Not right. In SPICE history there have been lots of deprecated features, but none have been removed. Community first idea is why they are still kicking.

~ Another person respects that. Doesn't want to willy-nilly ruin things. Will move this to GitHub and put it on the agenda, with the new ideas added and get this moving forward.

CCB-356 - Update Constraints on Author/Editor Lists

Comments have been posted about specific requirements from the CCB. Still worth doing once we have a better grasp on how to do backward incompatible changes.

Question: Does anyone feel the fire and want to take this on for now? Or we could get back to this later... Not seeing any fire.

Answer: Someone wants to know if we are just going to punt to a later date.

Another Answer: Yes.

Another Question: Were there a lot of changes for this?

Answer: Was a model change, but people have other things to work on.

- ~ Someone worked on it, but it became a big mess. Comments from the CCB asked for a lot of examples. Someone who is really hot on this can take it on. Don't want to start my GitHub experience with this.
- ~ Unclear we have any ability to push back on something that's not reasonable.
- ~ Someone made that comment in jira.
- ~ EN will copy that to GitHub. We can take it to the MC if necessary. ****(Action Item - EN)**** ~ Delaying this will cause more problems for getting it fixed.
- ~ Exactly. We'll get it done.

Question: Justification is missing. If it's that critical, shouldn't we re-migrate everything to take advantage of this?

Answer: Critical for the future. A bug in our IM. Not designed properly in 2010, but highly critical.

- ~ PPI doesn't have resources to re-migrate all of our holdings.
- ~ Someone else agrees this is a bug in the IM. When it went in they thought it wasn't good.

CCB wanted an attribute to specify ordering. That's a simple change that we should vote on - if we will do that before we push back to the CCB. Less trivial to order.

- ~ Someone agrees. A bit in the weeds, but ordering was a problem. Small change.
- ~ Another person is unclear on why the authors wouldn't be put in the order listed, but agrees another

attribute would solve the problem.

Regarding our relationship with the CCB - we are the lower house. The CCB is the upper house. It's political. We are not required to do what they say, but we need to come up with something they will approve.

~ We can't bypass the CCB and go to the MC.

~ That would be the nuclear option.

CCB-366 – Schematron/Schema Version Conflict

We need a volunteer to provide language for the SR.

#Meeting Chat

from Jordan Padams to Everyone: 11:05 AM

+1

from Jordan Padams to Everyone: 11:07 AM

Do we have a # of backwards incompatible changes as a gate?

from matt to Everyone: 11:11 AM

I just joined. Apologies, a bad case of coming back from vacation.

from Jordan Padams to Everyone: 11:18 AM

We could use PDS4 Information Model Discussion

Board: [https://urldefense.us/v3/_https://github.com/NASA-PDS/pds4-information-model/discussions/_;!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4qwz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTgQHyfdpQNG\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/pds4-information-model/discussions/_;!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4qwz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTgQHyfdpQNG$)

from matt to Everyone: 11:21 AM

Perhaps this has been mentioned, but I presume that point #3 will only come to pass if and when incompatible changes have arisen.

from Jordan Padams to Everyone: 11:31 AM

Have to jump to another meeting. Thanks all. Great discussion

DDWG Notes 2024-01-18

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January 18, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, E. Guinness, L. Huber, T. Hare, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, and R. Simpson
Known Observers: A. Bailey, P. Lawton, E. Schaefer and M. Tiscareno

DDWG Agenda

(Included in email sent January 16, from M. Drum, Agenda for January 18, 2024)

Front-matter/What's new

1) New issues in GitHub:

a) CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes

b) CCB#13 – Ensure file name and directory path name adhere to SR

2) CCB-358 – Instrument Package Context products – Matt Tiscareno/Mike Drum

a) Undergoing review by CCB. Not a slam dunk.

3) SCR Freeze date: 2/12/24

(Discussed)

Ready for Vote

- None this week

Tier 1 issues

- CCB#4 – Backwards Compatibility policies – Mike Drum Presentation linked in email: Backwards Compatibility

- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum

- CCB-356 – Update Constraints on Author/Editor Lists (Ron Joyner) EN is taking this over

- CCB#10 – Schematron/Schema Version Conflict Need volunteer to provide language for SR

- CCB-367 – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases

- CCB-164 - Display Settings not required for images -- (IMG)

Trent will take another look at this

One issue was the one-to-many reference to make sure it made sense for multiple image objects

- CCB-211 – XML/schema based files as archival data – Jesse Stone, Mike Drum

(Some Discussion)

Tier 2 issues

- Product Metadata Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata

(Not Discussed)

Parking lot – need a driver!

- CCB-326 - Inconsistent Direction on How to Use Discipline Facets

- RS: 259/281 (see new attachment to CCB-281) (on hold)

- CCB-364 – Disallow bundles referencing collections by LID **** (Not Discussed) ****

Next meeting: 2/1/24

DDWG

Front Matter

Before we really begin, a technical question to the group. Someone has a bunch of PDFs to migrate, has Acrobat, but wants to know if there is another tool that can be used to convert to PDF/a level 1b.

~ SBN has instructions and tools on their home page.

The transition to GitHub is underway. A number of issues have been migrated. The new format for the name should indicate if something is in GitHub versus jira. Jira might still be up.

There are two new issues, things to clarify.

~ Someone commented on the second one (CCB#13). Thinks what's being asked for is a forward slash, but that changes the standard. Not ready to do that. It would mean we could have multiple levels of sub-directories. Opens a lot of potential new problems. Not just a matter of cleaning up validate.

~ Someone thought it was to allow full directory trees.

~ No, that's a different use. Don't think we ever expected whole directory trees.

~ Good point. We should clarify the utility of directory path name.

~ Sub-directories work, not trees.

~ Would need slash for child directories.

~ Would have label with a sub-directory parallel to it, could put children, like GIFs there.

~ Someone is confused.

All directory names are relative to the label.

~ Someone is looking at 19.14 in the SR. It allows slashes.

~ Someone else though we only allow LIDs.

~ PDS4 doesn't say much about directories.

~ Only for documents.

Question: Where does directory path occur?

Answer: In document labels.

~ Thought PDS4 is completely agnostic to file directory path.

~ The document people wanted it.

~ Some parts of documents are more complicated. This is to help organize complicated documents.

The concern is that it's not just updating validate. There are some SR issues here.

~ In The IM specification, directory path name is ASCII Short String Collapsed, which allows slashes in the formation rule.

~ This might be a battle that's already done.

~ Not sure what's in the SR, but the formation rule allows the slash.

Question: If there is a sub-directory of GIFs would you individually label those?

Answer: No. You would have a directory with a label with lots of files that are part of one document.

Could have sub-directories for GIFs, but everything would be covered by one label in a parent directory.

Some of the objects might have directory path name.

Another Question: How do you label them?

Answer: Path name is GIF. System glues them together with a slash.

~ So there's a resident directory with an implied sub-directory.

~ Nothing is implied. Need a directory path name.

~ We need some agreement. Need to clarify that it all makes sense. There might be a standards issue here.

~ Someone tried looking in GitHub, but it was harder to navigate than Jira.

The question is how many people agree we don't need a slash.

~ Someone agrees, but we should see what our documents say and then have a discussion.

~ Another person found documentation that included slashes. Need to clarify how directory path name is to be used and validate issues.

~ Someone else is pretty sure slash is in all the relative paths. Thinks it's allowed. It would be a change if we remove it.

Someone is trying to follow the discussion. The SR has directory path name ASCII Short String Collapsed.

Maybe that's an issue. Also, GitHub says directory path can have a dot, but not sure that's in the SR.

Need to clarify if a dot in directory path name is allowed.

~ Relative path for where you're at starts with a dot.

~ SR doesn't include the dot. In Issue 13 the dot is included.

~ It was added for issue 13. It's open for discussion.

~ If it's allowed, the SR needs to be updated. Data type needs to be clarified too. Easier to validate against. We need more research on this to move forward.

~ Someone is not sure they followed all this, but thinks we could put all files described by one label in a directory.

~ Another person wants to know if they are suggesting nesting labels.

~ No. If many files all described by one label, could put them in the same sub-directory so they are not mixed with a bunch of other files. Since PDS4 is directory agnostic.

~ Someone is not seeing the value. Registry should be able to find all parts of the product. Is doing lots of restorations with lots of files. Trying to break into several directories would be a lot of work.

~ There's no requirement. Up to the DP.

Maybe people could look and see if this has been used. Easier to change things if they haven't been used.

~ Reporter found examples of use, but not sure if it was used legally.

~ The problem was during validation.

~ That's surprising.

The freeze date is coming up. February 12.

~ Someone wants to discuss what we can do before the freeze.

~ We will.

The CCB is discussing CCB-358 - instrument package. They are meeting next week.

~ Someone hopes this won't come back to us. We'll see. Believes the issue is understanding the problem we want to solve and why we want to solve it that way.

~ Someone else agrees. We will have to wait and see where this goes. There is also some hesitancy of going forward with something that so many people abstained from or weren't here to vote on.

The SCR freeze date is less than a month away. Only one meeting is scheduled. The freeze date is for CCB to approve SCRs, not for documents, but there is a bit of wiggle room. We could meet February 8 once more. That would probably be okay.

~ The 12th might be a holiday for some people. Lincoln's Birthday.

~ Not a federal holiday.

~ It's not clear that any SCRs are close enough to get through in the time left. Backwards compatibility policy won't be a short discussion. Semantic versioning is not tied to the build.

Question: Can we look at CCB-356? An email was sent out this morning to ask for comments on the suggested changes. They were an attempt to address the CCB issues.

Answer: (Yes)

Tier 1 issues

CCB-356 - Update Constraints on Author/Editor Lists

We definitely want to get this one out. It should be our number one priority.

Question: What does the DDWG need to do?

Another Question: Where is the pressure to get this through coming from?

Answer: EN.

Another Question: What did EN volunteer to do for this?

Answer: Jordan identified this as high priority for the DOI group.

Another Question: When looking at the list of SCRs, CCB#10 - what is that?

Answer: Ambiguous in the DPH and SR in the case of schema and schematron having different version.

~ Okay.

So, for author list, an updated PowerPoint was sent out by Ron Joyner, CCB-356 enhancements, on January 18, 2024. Sharing that now.

No changes to slides 1,2,3,4 or 5.

Slide 6 - added sequence number. An integer. Already in the IM. Could use in the author, editor or contributor lists.

Question: Sequence of authors or contributors in total? Could it have a first author?

Answer: Each would be independent sequences. If we want to interleave then we would need to make some changes.

~ Someone thinks this works.

~ A definition was provided.

Question: Any questions?

Answered with a Question: Is this required?

Answer: Optional.

No changes to slide 7.

Slide 8 - One CCB comment was that they wanted to interleave author and organization. Added a blue box to show it can already be done.

Slides 9 - 13 - same, added sequence number in each. Blue boxes.

Slides 14 and 15 - no changes.

Slide 16 - added a definition for sequence number. It's kind of ambiguous. We might want to modify it. Also added an example.

~ Someone commented that we should note if sequence is not used that the order in the label is the sequence.

~ Someone else said that nothing is supposed to be assumed in PDS4.

~ Maybe we should make this required.

Question: Are there times where it's not an explicit list or it shouldn't be?

Answer: (Silence)

~ Author list always has some ordering, even if it's just alphabetical.

Another Question: Interleave or separate author, editor or contributor?

Answer: Separate. Contributors never get listed in citations, usually in the acknowledgements. Not sure how that got into the citation list.

~ Someone would love to change that.

Question: Back to slide 2, what we have now. Don't see contributors, so we are adding it?

Answer: Yes. New class.

Another Question: Who asked for that?

Answer: It might be from Datacite.

~ Someone wondered if it's ordered.

Question: On slide 4. We were just discussing that EN needs this, but wants to know exactly what. Is it so that edge cases can be archived or that we needed an ordered list everywhere? Edge cases with a comma can be worked.

Answer: Comma is a delimiter within a field. Not how we do it for PDS4 modeling paradigm for separating things.

~ There's a lot of critical information that we aren't getting, like orcid. It gives us better legitimacy as an archiving organization.

~ Someone agrees. Had a conversation about the importance of orcid because names change. Orcid could be added and still be backwards compatible, but we need to understand the purpose of this author list and if this overhaul is needed.

~ Valid argument, but don't think we originally considered that. Things have changed.

~ If EN is saying we must do this, then fine.

EN wants all the extra metadata. Don't see a clean way to do that in a purely backwards compatible way. Should go through the list of what the CCB wanted, which we mostly have, but they also want examples. Don't think a re-vote is necessary.

~ A re-vote is totally necessary if we are rewriting the SCR.

~ Someone agrees.

~ Another person is working on an example.

~ The CCB wanted to see how to format a reference for major publications, to verify it could be done for the most common publications. Like for JGR. They want to see that this has all the information they need to provide references.

~ Someone thought they wanted a lot more, but that might be a good way to approach the usability of this.

~ This is mostly for documenting producers of data sets.

~ Yes, but also for journal articles. A much bigger job.

~ Someone is happy to help provide some examples. Don't think every node needs to do it.

Question: With so much pressure to get this done, what is the impact on EN if this misses this build?

Answer: Jordan is extremely interested in getting this into this build. He's willing to work with the CCB.

~ There would be six months of products that wouldn't get to use this that might need to be redone.

~ Someone assumes that would have to be done anyway. Would like to know if we are talking about half a dozen or four dozen.

~ Someone else thinks it might be wanted for the website, to be able to display it properly.

~ They wouldn't need that in the next six months.

~ Another person has an idea on why, but we are past time now. We can ask Jordan to email us why he is pushing for this. Think we can vote next time or have another meeting.

~ It's unclear why we would need extra time.

~ Just wondered what the impact is if we don't get this through. Would like to do it carefully, thoughtfully, not just push it through.

~ Understands, but not sure what the DDWG needs.

~ Would like to see many examples. Concerned about documents and having information in multiple places.

Someone is asked if they would like to make the examples.

~ Says they could find someone to do it, but need something to use. Schema. So they know they were done right. It's kind of a chicken and egg thing.

~ We should know what to do.

Not hearing any substantial wishes for changes. We can discuss this again and vote in two weeks.

~ It would be nice to have people do examples in different contexts and have instructions on what to use. Maybe the thing that Ron just sent.

~ Someone thinks we need to use what Ron just sent. There isn't anything else.

Question: Did we decide if this is backwards compatible?

Answer: Not in the long run, but along side.

~ Anyone using version 1 won't meet the EN requirements.

~ We're not going to immediately require new things.

~ Temporarily backwards compatible.

~ And what we have been using will be deprecated.

People will work on examples.

~ We are overtime.

The IM isn't perfect. We put it out there and started using it.

~ This is not our first non-backwards compatible change. Doubt it will be the last.

~ Yeah, it won't be the last.

DDWG Notes 2024-02-01

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February 1, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, E. Guinness, L. Huber, T. Hare, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi and R. Simpson
Known Observers: A. Bailey, P. Lawton, S. Loftin, E. Schaefer, M. Seritar and M. Tiscareno

DDWG Agenda

(Included in email sent January 30, from M. Drum, Agenda for February 1st, 2024)

Front-matter/What's new

1) pds-jira.jpl.nasa.gov will be shutting down on 2/1

a) Export of history here: [https://urldefense.us/v3/https://github.com/NASA-PDS/PDS4-CCB/tree/main/data ;!PvBDto6Hs4WbVuu7!PP0HOtiDEewn4f_c1xIfW5AA2_NihjqhTuobUoHO8B4XKDntWDXkqLqI7AtQK73v7QqQcE4sSGfoE9O_H8cviRaYkFKv_bf\\$](https://urldefense.us/v3/https://github.com/NASA-PDS/PDS4-CCB/tree/main/data)

b) As-needed, a select group of people can access the backup here [https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues ;!PvBDto6Hs4WbVuu7!PP0HOtiDEewn4f_c1xIfW5AA2_NihjqhTuobUoHO8B4XKDntWDXkqLqI7AtQK73v7QqQcE4sSGfoE9O_H8cviRaYi0JCt02\\$](https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues)

2)New issues in GitHub:

- CCB#16 – Allow micro amps and nano amps as units of current
- CCB#18 – Never finished CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational)
- CCB#19 – Never finished CCB-325 documentation updates (Title: Support for video and audio as product observational)

3) CCB-358 – Instrument Package Context products – Matt Tiscareno/Mike Drum

- Undergoing review by CCB. Not a slam dunk.

4) SCR Freeze date: 2/12/24

(Discussed)

Ready for Vote

- CCB-356 – Update Constraints on Author/Editor Lists – Ron Joyner/Dick Simpson
- Latest proposal here: CCB-356-proposal-v3-20240108.pptx
- Rationale for urgency – Please read!
- Go over examples and discuss Ed's latest concerns (email on 1/30)
- Vote if we feel ready; if not, vote in 1 week
- **(Discussed)**

Tier 1 issues

- CCB#4 – Backwards Incompatibility policies – Mike Drum
Presentation: Backwards Compatibility
- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum
- CCB-356 – Update Constraints on Author/Editor Lists (Ron Joyner) EN is taking this over
- CCB#10 – Schematron/Schema Version Conflict Need volunteer to provide language for SR
- CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB-367 – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases
- CCB-164 - Display Settings not required for images -- (IMG) Trent will take another look at this One issue was the one-to-many reference to make sure it made sense for multiple image objects
- CCB-211 – XML/schema based files as archival data – Jesse Stone, Mike Drum ****(Some Discussion)****

Tier 2 issues

- Product Metadata Errata?
Create a supplemental label to live next to original label, that can add aliases and supersede metadata ****(Not Discussed)****

Parking lot – need a driver!

- CCB-326 - Inconsistent Direction on How to Use Discipline Facets
- RS: 259/281 (see new attachment to CCB-281) (on hold)
- CCB-364 – Disallow bundles referencing collections by LID ****(Not Discussed)****

Next meeting: 2/8/24

DDWG

Prior to the official start of the meeting there was a discussion about determining if PDFs are PDS4 compliant.

- ~ Someone said that apparently the validate tool does a better job of determining if a PDF is compliant or not. Acrobat just says yeah, we think it is.
- ~ So the question is how to convert them.
- ~ Ron can help.
- ~ Concern is that validate doesn't like the ones in question, and Adobe and Ghost script aren't working.
- ~ They might have to be regenerated from a Word file.
- ~ These are nearly 20 year old PDFs. Don't have the original source.
- ~ Send Ron the link that is being used to validate.
- ~ Another person has also had this issue. Suggests Ubuntu and (ask Trent).
- ~ JPL won't allow him to install that. They barely allowed him the newest Java.

Front Matter

Jordan asked Mike to share the links again for GitHub. Jira is being shut down today. People can let Mike or Jordan know if they need access.

- ~ Someone said the main issue seems to be getting the attachments.
- ~ Jordan is refining his way of grabbing it all. The second attempt was better. Attachments will be elsewhere, where only ten people will have access.
- ~ Someone knew this was going to be a pain.
- ~ It's unclear how easy or difficult it will be to bring over the attachments.

~ If you zip them up, you can do it.

A couple of new issues were added. Issues 16, 18 and 19.

##Issue#19 (Never finished CCB-325 documentation updates)

It was noticed that some documents weren't updated and that we had an lien from CCB-325 (Support for video and audio as product observational), which was approved about a year ago.

~ It's not clear if we need to vote on this.

~ Reporter wasn't sure where to put this. Need documentation updates to go somewhere. Unclear if there's someone working on the Concepts Document and the DPH, but we need this documented in there.

~ Ron's the stuckie now.

~ This is low priority, but it's work across the board.

Question: A zip of all the documents?

Answer: Yes. GitHub is particular about file extensions, so had to zip it up. Years ago our websites were hacked by a JPEG, so GitHub is very particular.

Officially, we never voted on the lien to add encoded video to file area ancillary and file area browse, but everyone agreed we needed it.

~ We can do an evote.

Question: Is it in product observational?

Answer: Yes, and product observational supplemental.

~ Sounds like a bug, so we should let the CCB know, but they aren't required to vote.

~ The CCB wanted this lien.

~ Someone thought liens were before the vote and part of the vote.

~ We let this one go without the lien.

~ We will vote on the lien and let the CCB know.

#CCB-358 – Instrument Package Context products

The CCB met last week. There's still no full decision on this yet. Deliberations are ongoing. It will probably be sent back to us. Mike wasn't at the meeting.

~ Lyle attended because Lynn was unavailable.

~ The CCB has some concerns over where this fits in the context system. Also, another concern came up that we are getting multiple LIDs to the same product. That's bad practice. Concerned.

~ Matt also attended. Unsure where that came from. There were ideas flying all over the place. Unclear if we really need this for the current build. Trying to figure out what's going on and help.

~ There are lots of issues with this and context product system. Can't learn enough about the observation system from the products since they were dumbed down. We lost understanding of what the observing systems really are. We lost hierarchy. In my opinion, it should be a separate ticket, but this is when it's coming up.

~ A previous SCR deprecated most values for the observing system component type. We took that out and put it in the context products.

~ Yes. It's a problem we created and need to fix.

~ Someone isn't sure the product labels are where we should address this. Views that as metadata to

search on. We will get different hierarchies and results if that's in the labels. It's more uniform in the context products.

~ Search should be using the context products.

~ Someone agrees.

~ Another person agrees, but you lose direct usage, but we already have references. It's a trade we already made.

~ Someone else agrees. Relationships should be in the context products, but should also have keywords in the labels. This doesn't need to be in this build.

Ready for Vote

CCB-356 – Update Constraints on Author/Editor Lists

This does need to be in this build. Jordan wrote a white paper about why EN needs this in this build, which is in 12 days.

We tasked Jordan with three items to address. First, a rationale for this non-backwards compatible change. The document does it. Jordan gets an A for that. The second task was to answer why we have this artificial deadline. It's addressed at the end of the document, and the answer is "because". That's insufficient. Jordan gets a D for that. The third task was to address why this is necessary and what we will do with the millions of products not under this IM. Unclear if we are not worrying about those, and if so, then the reason to do this is a non-starter, but if we are going to worry about them and need to re-migrate everything the impact is enormous and we'll need money. For that Jordan gets an F.

For part two, this is something we should adopt as soon as possible due to the possible loss of metadata.

~ There's no mission pressure here.

~ Were all to put pressure on ourselves.

~ Migrations are happening now.

~ This affects my node if we have to re-do all our migrations.

~ The timeline is to get this in the IM.

~ It would just be for new projects or IDPs, but it's true the value is diminished if we are not going to re-do older data sets. There are two issues to work out. In general, it's probably a good thing to do, but we need to do it right.

~ Someone agrees. The urgency and pressure is coming from people who want to read the labels and move the data to the Astro system. Also concerned with the argument that we need more information. Would vote in favor of this, but don't think it's urgent.

~ Another node would like to see this done ASAP. Agrees about the impact on completed stuff, but we are trying to finish migrations in the next six to nine months. Wonder if we can separate the question of what to do with stuff already in the archive from things we need to do. Don't think there's much disagreement that this is a good idea. The impact on the existing archive is the issue.

~ Someone agrees with the first speaker, especially the concern about the funding and who is allocating it. As to why do it now - we've already done a lot of the work on this. Inclined to move it along.

~ Another person agrees regarding why not do it now. It's a moving target. Hasn't seen a hard and fast list of what we need to fix. Old capability will still be allowed, so if this is ready to go let's put it in and get the metadata.

~ This will come out in summer. No mission pressure, just migrations and IDPs would start using it. We need to consider it's utility if the vast majority of our data won't be using it.

Question: What are the issues? Any documentation issues?

Answer: Some came up this week.

~ It's a moving target.

****Action Item - Everyone**** - if there are issues, post them to GitHub.

~ Someone sent issues to the email list.

~ In terms of moving this forward, there has been a lot of effort. If we back burner it it will take a lot of effort to bring it up again.

~ We shouldn't back burner it.

Another thing to consider is that as perfect as we ever get anything, in the first six months there are always little details found when we really start using new things. That enables us to see if there are problems to fix.

~ Someone just wants to be clear, this is a good SCR. It moves us forward. Concerned with the idea that we have to do it by February 12. It's a big enough change that we should take time to do it right. Before we vote we need some commentary about remediation. It might resolve the problem if we only fix bundle files for previous migrations and fix validate to accept that. Could be simple and cheap.

Interested in hearing other ideas.

~ Someone else is not hearing objections to the SCR. The concern seems to be about retrofitting, but that's not part of this SCR. The old way would be available until version 2.0.

~ Another person has concerns about sequence and stuff. They aren't major problems. Can be cleaned up in the next week. Not seeing that the SCR is a problem. Could vote next week. Need to decide if we are going to require retrofitting.

~ The previously emailed concerns have been posted to GitHub and added to the SCR.

~ That's a good point. Worry about retrofitting is becoming part of the SCR. Need to stop that right now. Separate. Very worried about the retrofit becoming part of the SCR.

~ Someone agrees. It's a very important discussion, but it could take a year or more and will involve the MC. Not a good idea to tie the issues together.

~ Another someone agrees. If anything, the point about urgency is tied to the future and migrations. If we delay that's six more months of things that would need to be migrated again.

~ If this is just going to be there for harvest, we could probably do something programmatically. It might not be a big deal. Not all nodes would re-migrate.

~ Someone agrees. This is a standards decision with policy implications. When we go to version 2.0 we will have to decide if we need to re-migrate everything. It's a big question that we will need to discuss. On this issue, there's been very little discussion since December on either Jira or GitHub. Think we can work this out and get this done.

Mike has reached out to Jordan to see if we can get an extension. Seems like the issues brought up can be addressed and we can advance this.

~ A few examples have been provided. Now they are all on GitHub. We can have conversations there instead of in email so that everything will be available to everyone. We should have our conversations in GitHub as we go forward.

~ Someone didn't have any problem putting together their example.

~ Someone else had an example with a big issue. To do with duplication in documents. Schematron rule requires citation information class in document class. Issue with duplication. Doesn't make sense.

~ Maybe not to a human, but not a big obstacle. Can just copy and have it twice.

~ The issue is if they are different.

- ~ Maybe validate needs to check.
- ~ Unclear what to do about the document issue. Maybe because it had author/editor list prior.
- ~ Needs to be where software will look.
- ~ Technically, different schematically, I think. Might have a different author for a document.
- ~ A person is trying to think about why we would want them to be different, author list and citation information.
- ~ That's the whole point. It's under two objects. They can be different. We need to decide if we want them both. With two objects it can be different.
- ~ We need to document in the DPH that they are semantically different. DP can decide how to use them.
- ~ It's not a deal breaker. Something to clarify in the DPH.

We should meet again next week and just focus on this topic. Issues can be posted to GitHub. We can vote next week.

- ~ Someone encourages everyone to try some examples.

DDWG Notes 2024-02-08

title: DDWG Notes 2024-02-08

layout: default

date: 2024-02-08

February 8, 2024

Notes by Debra Kazden

Followed by Notes by Dick Simpson, Meeting Chat and Mike Drum's GitHub entry summarizing the liens

Known Attendees: M. Drum, E. Guinness, L. Huber, T. Hare, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson
Known Observers: A. Bailey, M. Bentley (for T. Lim), P. Lawton, S. Loftin, J. Padams, E. Schaefer and M. Tiscareno

DDWG Agenda

(Included in email sent February 6, from M. Drum, Agenda for February 8th, 2024)

Front-matter/What's new

Front-matter/What's new

- New issues in GitHub:

(none this week)

- CCB-358 – Instrument Package Context products – Matt Tiscareno/Mike Drum Deliberations ongoing in GitHub

- SCR Freeze date: 2/12/24

(Brief Mention)

Ready for Vote

- CCB-356 – Update Constraints on Author/Editor Lists – Ron Joyner/Dick Simpson

See Latest proposal powerpoint

Rationale for urgency

Current liens/issues - Please read

(Discussed - Voted to pass with liens)

Tier 1 issues

- CCB#4 – Backwards Incompatibility policies – Mike Drum

Presentation: Backwards Compatibility

- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum

- CCB-356 – Update Constraints on Author/Editor Lists (Ron Joyner) EN is taking this over

- CCB#10 – Schematron/Schema Version Conflict Need volunteer to provide language for SR

- CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes

- CCB#13 – Ensure file name and directory path name adhere to SR

- CCB#16 – Allow micro amps and nano amps as units of current

- CCB-367 – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases

- CCB-164 - Display Settings not required for images -- (IMG)

Trent will take another look at this

One issue was the one-to-many reference to make sure it made sense for multiple image objects

- CCB-211 – XML/schema based files as archival data – Jesse Stone, Mike Drum

- CCB#18 – Never finished CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as

product observational) E-vote on lien fwd to Ron

- CCB#19 – Never finished CCB-325 documentation updates (Title: Support for video and audio as product observational) Fwd to Ron **** (Brief Discussion. Will evote on #16) ****

Tier 2 issues

- Product Metadata Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata **** (Not Discussed) ****

Parking lot – need a driver!

- CCB-326 - Inconsistent Direction on How to Use Discipline Facets

- RS: 259/281 (see new attachment to CCB-281) (on hold)

- CCB-364 – Disallow bundles referencing collections by LID **** (Not Discussed) ****

Historical links:

- Export of history here: [https://urldefense.us/v3/https://github.com/NASA-PDS/PDS4-CCB/tree/main/data;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IFIS0439\\$](https://urldefense.us/v3/https://github.com/NASA-PDS/PDS4-CCB/tree/main/data;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IFIS0439$)

- Backup here [https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IAIYE9Ie\\$](https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IAIYE9Ie$) (limited seats)

Next meeting: 2/15/24

#DDWG

We have a full group today and we are only going to focus on one main issue - CCB-356, Update Constraints on Author/Editor Lists. There is still more to discuss on instrument packages, but that won't be today.

Ron put together a summary of issues for us to discuss.

~ Went back through all the comments to bring up the issues and create a list of what the DDWG needs to do. Posted a link to the CCB concerns. Sorted out comments with proposed solutions. The first is to add sequence to parent organization. DDWG needs to vote to adopt schema changes and then fix the PowerPoint, SR, DPH, test cases etc, to prepare for CCB review.

~ Someone said they were unclear on why an organization would have multiple parents.

~ Another person said they saw an example where the author was the US MARSIS team. That probably includes people from several organizations.

~ Those would not be parents.

Question: Then what does parent mean?

Answer: Hierarchy, like NASA is the parent of JPL or a University is the parent of a department.

Another Question: So what do we do?

Answer: Maybe a contributors list or affiliates. Certainly not parents.

~ That's fine. Was confused.

~ Adds another level of complexity to add parent class. Think someone had another example.

~ It had multiple affiliations, like the example - a lab is part of a department which is part of a university.

- ~ Each is a parent of it's children. Parent may have a parent of it's own.
- ~ Nesting.
- ~ Yes.
- ~ Not necessary for the case we are discussing. Still confused. If listing a team unclear if we need to tie them to different organizations.
- ~ Can see where an author might have multiple affiliations.
- ~ Affiliations is the next discussion.

Question: If authorship is attributed to a team, like the Magellan Radio Science Team, are they listed as an organization?

Answer: Definitely not a person, so would have to say organization.

~ Alright.

Question: Do we want to revisit again with nested?

Answer: We want to get this finished.

~ Someone agrees. This is not a blocker.

~ Yes, but there it's probably more common than we think. Might happen more often than we think. A lot of people work for Cal Tech and JPL.

~ Affiliations.

The link with the CCB comments isn't accessible.

~ EN can give it to people on a piecemeal basis. Only ten people have access.

~ The link to the PDF at the top has all of the comments.

~ Everything from the Jira ticket is in that PDF.

Question: As far as associating people with organizations - the association is already zero to many. It needs sequence number. Is that the change here?

Answer: Yes. And would like to vote on the first one.

~ Before we vote, trying to understand how to apply this to an instrument team where the members are from different institutions.

~ A team would report to a PSG and that would report to a mission. If we want to report the members of a team, not sure this is the way to do that. Had a Mariner 9 Radio Science team article- the author was the Mariner 9 Radio Science team. There was a footnote that had a list of team member names.

Another Question: Does it hurt anything to do it this way?

Answer: Complicates the meaning of parent organization.

~ We can put a definition.

~ Very hard to control. Makes it difficult.

~ Maybe this needs to be redesigned to be nested.

~ We can come up with a better solution separately later without adding a new class. No one has identified a clear need for this.

~ We're trying to do citations. Transplanting entire organization into PDS label sounds like we are overdoing it.

~ Sounds like you want to take parent organization out.

~ Okay with nesting, but can't see a DP providing it all.

~ Then not sure why to have it.

~ Interoperable. Other organizations have it.

(More discussion on what's actually harvested) ~ Seems to someone that this is good enough.

~ Another person agrees. If we need more we can do another SCR.

****Vote for the lien on the screen** (See liens listed below. Note taker could not see the screen.)**
****ATMOS - Yes** (Sure, yeah, whatever) ****EN - Yes GEO - Abstain** (leaning no, confused) ****IMG -Yes****
IPDA - Abstain NAIF - Abstain PPI - Yes RMS - Yes RS - No SBN - Abstain****

That is 5 yes, 4 abstain and 1 no.

~ Passes overwhelmingly by the DDWG definition of passing.

Now, for affiliation, to adopt sequence number.

~ Someone thinks it's fine.

~ Another person thinks it can go through.

Question: This is in person?

Answer: An affiliation.

~ In class of person.

~ Saw a case where there were two affiliations.

~ This is a sequence number within affiliation of a person. Seems like an asterisk to someone.

Question: Does anyone oppose this?

Answer: (Silence)

~ Okay. We will adopt this lien too, to add sequence number to affiliation.

Next discussion is on ORCID/RORID.

~ Someone thinks the comments in examples are just that the DDWG needs to adopt that the values are full URL.

~ Another person said in the example JPL is incorrectly used for RORID. Both RORID and ORCID suggest using full URL. I agree. We should decide how we want that formatted.

~ So we need to adopt format.

~ Yes.

~ Mike will pull it up for people to see the full URL.

~ They suggest full URL for clarity.

~ Someone is in favor of this.

Question: Can we adopt this lien as well?

Answer: (Silence)

~ Okay. Three liens so far.

A new comment was added. Pointed out that max value of 16 for sequence is a boo boo that needs to be corrected.

~ There's also a minimum value of zero. Should be one.

****Action Item - Ron**** will make the changes. Will make it one to a big number.

~ ASCII positive integers should be sufficient.

~ Someone is not sure that's a type.

~ We will have problems if it is a ridiculously big number.

~ Those have to be typed in.

~ We don't want author list to be unreasonable.

Question: Is it clarified in sequence number that these should be sequential?

Answer: Yes. In the definition.

~ Something has gone terribly wrong if they get to two billion.

~ Ron will discuss the type to use with Steve.

Another Question: Shouldn't ASCII non-negative with a minimum of one work?

Answer: Just working on a type for schema.

Another Question: Can't we just set a limit of one?

Answer: In schematron, but it won't address concerns about possible billions.

****Action Item - Ron**** will write a schematron rule with minimum value of one.

Question: Is this a change or a clarification?

Answer: The comment covered everything with citation information.

~ The real comment is wondering if there are places where we are going to require some of these new classes, like a product bundle has citation information. If we want a DOI for a bundle, we have to have authors. Seems to be a disconnect in the PowerPoint with that, so wants to know where this will be required.

~ Citation information is just required in documents.

~ But if you want a DOI for a bundle you have to tell the DPs.

~ Validate will tell them.

~ Our documentation on this is lacking.

Question: Are you saying a DOI for a bundle requires citation information?

Answer: You need an author to fill out the DOI request.

~ Someone is not sure that's tied to a product label.

~ EN requires it. It's useful information. You can do whatever you want, but if we say you need an author, you need something there to get a DOI. EN can figure something out if there isn't one.

~ We can't require this yet for backwards compatibility. Can fix that.

~ EN can check on that.

~ With schemas.

Another Question: Is this relevant to the SR and DPH or just validate?

Answer: If we make the rule, we need to document it. Should be in the SR.

~ Chapter 9.

~ Chapter 9 says if we have a science data collection we have to have certain things, like primary results. This could go there if we decide certain products need to have this.

Question: Is it a lien to adopt requirements and document in the SR?

Answer: Someone thinks so.

~ Someone else agrees.

Another Question: How do we word the lien?

Answer: Bundle products require old or new system and it should be documented in Chapter 9 of the SR.

Another Question: So this is a lien we want, right?

Answer: At least for bundles. Believe citation information is already required for documents.

~ Yes.

~ But to this lien, SCR says author/editor lists go away if we adopt this. They are deprecated, so bundle products should require list author or list editor and we should document that in Chapter 9. We're moving on from author/editor list.

~ We can say the old way is deprecated and starting with IM X you should use the new classes.

~ That sounds like a DPH thing.

- ~ Some people have been discussing this. Don't want to document deprecating things. We want people using the new way.
- ~ Difficult to document. Updates need to be in the PowerPoint, SR, DPH, etc. SR Chapter 9.2.2. already says citation information authors list must be included for collection and for bundle too.
- ~ Someone hasn't looked recently.
- ~ We need to update that to refer to list author and list editor to be consistent with the new IM. That would work for me. Say bundle products must use citation information with list author.
- ~ Someone completely agrees, but there was a lot of concern about backwards compatibility. We wanted to retain ability to use the original attributes, not the new classes.
- ~ Yes, but we shouldn't document as acceptable practices.

We should vote on this lien.

Question: Anyone opposed?

Answer: (Silence)

~ So, we have five liens. We can vote on the ticket with these liens.

Not everything is in order yet. GitHub has no TA, system impacts, etc. Don't agree statements in Jira are all accurate. Think the impact is high, and as mentioned last time, based on the urgency document that Jordan wrote, there needs to be a way to go back and fix things. Sees that as an unfunded mandate. Will be sending that to the MC.

- ~ There are tons of things that are non-backwards compatible.
- ~ EN says this is really urgent. That has nothing to do with anything else.
- ~ EN doesn't think they are mandating this. Proposing improvements.
- ~ The document reads like a mandate. Agrees it's a good idea, but my node has already migrated everything.
- ~ The SCR doesn't include retrofitting.
- ~ Then want words saying that.
- ~ That's the default. Separate issue if the MC wants us to re-migrate.
- ~ The DDWG doesn't have the authority to mandate anything. We don't have funds to mandate.
- ~ What I read said this is so important that we need to do it.
- ~ But that's not what this is. Would love to have HQ give us more money.

Question: Did you hear about the lay offs at JPL yesterday?

Answer: EN is aware.

The question is if stuff in the system can be re-done without re-doing all the data sets.

- ~ We can try. That's what EN does for DOIs. Registry can. Interfaces will need a way. It won't be perfect, but most tools won't care. DOI software and Annalist Notebook will be impacted.
- ~ Someone understands the concerns, but thinks there may be ways to get there without re-doing everything. Maybe a way to do some of it programmatically.
- ~ Could just update all the bundle files, but would have to validate against two versions of the IM.
- ~ Validate will run with two versions of the IM, it just complains at the end.

Question: We are over time. Do you want us to update language to say this is not required by adoption of this ticket?

Answer: Yes. Some words that say there's no intent to mandate any non-backwards compatible changes to previously archived bundles or products.

~ The DDWG cannot mandate. That's a matter for the MC.

~ This SCR does not require retrofitting previously migrated products.

Question: Is anyone opposed?

Answer: It's fine.

Another Question: Are we good to vote?

Another Question: Are we going to discuss the DPH edits?

Answer: Someone doesn't recall the issues.

~ People reviewed what was written. Needs some work. Can have a lien that the DPH language still needs work.

~ Okay. Done.

Let's vote with the liens that are on the screen (see below)

**The Vote - with liens - for CCB-356:

ATMOS - Yes

EN - Yes

GEO - Abstain** (too many liens)

**IMG - Yes

IPDA - Abstain

NAIF - Abstain

PPI - Yes

RMS - Yes

RS - Yes

SBN - Yes**

CCB#19 – Never finished CCB-325 documentation updates (Title: Support for video and audio as product observational)

A bunch of stuff was added. There were policies to update and document. Document updates are a no brainer, but policy updates are another issue.

~ This was voted on.

Question: Do the updated policies exist?

Answer: (Note taker could not hear speaker, but Dick's notes below say "CCB-325 allows compression, but MC never changed its compression policy to accommodate this change.")

CCB#16 - Allow micro amps and nano amps as units of current

Before we finish up for today, someone wants to know if we are not voting on this before the deadline. It seems simple.

~ Someone agrees.

~ The TA was done.

~ It needs definitions.

~ That could be liens.

~ This seems very simple to vote on and clear away.

We can do an evote.

~ A change to the IM, not a bug fix. It does need a vote.

****Action Item - Matt**** will add definitions to the SCR.

~ Someone appreciates that.

We will do an evote so we can all look at it.

~ It needs the characters for micro amps, etc.

~ Matt will add the definitions and make things make sense.

People will look at it.

****Action Item - Mike**** will get the evote out to everyone.

Summary of Liens Approved for CCB-356:

Lien approved: Adopting O:M for Parent Organization and the sequence number attribute

Lien approved: Adding sequence number to (Affiliation) Lien approved: Update the description of the

orcid/rorid attributes to require the use of the full URI form for ORCID/RORID Lien approved: Update

sequence number to have a minimum value of 1 and a maximum value of some very large number Lien

approved: Edit SR 9.2.2 to require that Bundle and collection products should use the new List Author

(etc) classes Lien approved: "DDWG cannot mandate any backwards changes to previously archived

products. That determination is left to the Management Council"

Lien approved: DPH language still needs refinement

Notes from Dick Simpson

From: mdrum@psi.edu

To: Loftin, Sheri A. (GSFC-690.1)[ADNET SYSTEMS INC],Patricia J. Lawton,Hollibaugh Baker, David M.

(GSFC-6901),Mia Mace,Richard Simpson,Tang, Vivian (US 398B),Jesse Stone,Joseph Mafi,Debra

Kazden,Jordan Padams,Carol Neese,Hare, Trent M,Hughes, John S (398B),Bailey, Alyssa M (US

392N),Lyle Huber,Anne Raugh,Tanya Lim,boris.semenov@jpl.nasa.gov,Edward A.

Guinness,e.schaefer@wustl.edu,Mitchell Gordon,Mcauley, Michael M (US 398B),Mclaughlin, Stephanie

A. (GSFC-690.1)[TELOPHASE CORP],Matthew Tiscareno,Joyner, Ronald (US

398G),daniel.s.kahan@jpl.nasa.gov

Subject: Special Agenda for February 8th, 2024

Date/Time: 2024-02-06T11:04:00 PST

Hi all,

We will have an "emergency" DDWG telecon this Thursday, February 8th at 9:30 PST (12:30 EST, and 10:30 in Arizona). Call-in information is listed at the bottom of the agenda.

For the latest version of this agenda, see the Google Doc

DDWG Agenda

Called to order by Mike Drum at 9:31 PST.

Attendees: Dick Simpson, Ron Joyner, Lyle Huber, Mike Drum, Pat Lawton, Ed Guinness, Ethan Schaefer,

Trent Hare, Alyssa Bailey, Joe Mafi, Sheri Loftin, Mark Bentley, Steve Hughes, Debra Kazden, Boris Semenov, Jordan Padams, Matt Tiscareno, Stef McLaughlin

Front-matter/What's new

New issues in GitHub:

(none this week)

CCB-358 (new link) – Instrument Package Context products – Matt Tiscareno/Mike Drum Deliberations ongoing in GitHub

SCR Freeze date: 2/12/24 (key dates here)

Ready for Vote

CCB-356 (new link) – Update Constraints on Author/Editor Lists – Ron Joyner/Dick Simpson Latest proposal powerpoint Rationale for urgency Current leins/issues - Please read

Ron summarized current status. He has reviewed previous comments and tried to accommodate them. He has posted a link to the earlier CCB comments; but Ed said that is not accessible. He has proposed a way to deal with multiple parent organizations; these and others, need to be translated into the PowerPoint. But Dick wondered why an organization would have multiple parents. A long discussion followed on multiple parents, affiliations versus parents, etc. Votes on multiple parents:

Y: Huber, Hughes, Hare, Mafi, Tiscareno

N: Simpson

A: Guinness, Bentley, Boris, Drum

Adopt sequence number. Limited discussion on need for sequences of affiliations. No opposition.

The examples need to be edited to use correct ORCID and RORID, including the 'http'. The descriptions for the attributes need to be corrected similarly. No objections.

sequence_number needs to be ASCII non-negative integer with minimum 1.

Ed said that authors are required when requesting a DOI. Does that mean that Citation_Information is required in a bundle label since a DOI is required? The answer appears to be "yes". No opposition.

Mike wanted to vote on the CCB; but Lyle said there are still issues. He said the impact statement is inadequate and that the impact is potentially high if there is an unstated requirement to retrofit the products already in the system. Most comments following were that there is no requirement to retrofit any archived data for any non-backwardly compatible change in the IM. Jordan said EN has been trying to add DOIs to existing data; but there is no guarantee that this will work for everything — some desirable information is simply not available. PDS tools are not impacted by addition of DOIs. Lyle suggested updating bundle labels without touching contents; validate may complain, but it won't reject. Lien about DPH language.

Vote on CCB-356:

Yes: Huber, Hughes, Hare, Mafi, Tiscareno, Simpson, Drum

No:

Abstain: Guinness, Bentley, Semenov,

Not Voting:

Tier 1 issues

CCB#4 – Backwards Incompatibility policies – Mike Drum Presentation linked here: Backwards Compatibility

CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum

CCB-356 (link) – Update Constraints on Author/Editor Lists (Ron Joyner) EN is taking this over

CCB#10 – Schematron/Schema Version Conflict Need volunteer to provide language for SR

CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes

CCB#13 – Ensure file_name and directory_path_name adhere to SR

CCB#16 – Allow micro amps and nano amps as units of current Matt said this is simple and should be included in the next build. Guinness agreed, but Ron said he wanted a more specific request. Mike preferred an e-vote after someone cleans up the SCR.

CCB-367 (new link) – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases

CCB-164 (new link) -- Display_Settings not required for images -- (IMG) Trent will take another look at this

One issue was the one-to-many reference to make sure it made sense for multiple image objects

CCB-211 (new link) – XML/schema based files as archival data – Jesse Stone, Mike Drum

CCB#18 – Never finished CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational) E-vote on lien

fwd to Ron

CCB#19 – Never finished CCB-325 documentation updates (Title: Support for video and audio as product observational) Fwd to Ron Ron said there are two MC policies that need to be updated (hard); documentation also needs to be updated (easy). Hare said CCB-325 allows compression, but MC never changed its compression policy to accommodate this change.

Tier 2 issues

Product_Metadata_Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata

Parking lot – need a driver!

CCB-326 (link) - Inconsistent Direction on How to Use Discipline_Facets

RS: 259/281 (see new attachment to CCB-281) (on hold)

CCB-364 (link) – Disallow bundles referencing collections by LID

Historical links:

Export of history here: <https://urldefense.us/v3/> <https://github.com/NASA-PDS/PDS4->

[CCB/tree/main/data ;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IFIS0439\\$](https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues/!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IFIS0439$)

Backup here [https://urldefense.us/v3/ https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues ;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IAIYE9le\\$](https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues/!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IAIYE9le$) (limited seats)

Adjourned 10:43 PST
Next meeting: 2/15/24

#Meeting Chat

from Mark Bentley to everyone: 9:43 AM

CCB feedback was:

from Mark Bentley to everyone: 9:43 AM

(ach, sorry, text limit)

from Jordan Padams to everyone: 9:45 AM

Organization: PDS PPI Node (obviously spelled out)

from Jordan Padams to everyone: 9:45 AM

Parent Orgs: UCLA, University of Iowa?

from Jordan Padams to everyone: 9:51 AM

At that point we would just create context products for all these people/orgs. I'm not sure we need to go down that rabbit hole at this time.

from Jordan Padams to everyone: 10:25 AM

[https://urldefense.us/v3/ https://github.com/NASA-PDS/PDS4-CCB/blob/main/docs/author-editor-list-update-](https://urldefense.us/v3/https://github.com/NASA-PDS/PDS4-CCB/blob/main/docs/author-editor-list-update-rationale.md ;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IPKORq98$)

[rationale.md ;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IPKORq98\\$](https://urldefense.us/v3/https://github.com/NASA-PDS/PDS4-CCB/blob/main/docs/author-editor-list-update-rationale.md ;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IPKORq98$)

from Jordan Padams to everyone: 10:25 AM

Jsut updated

from stef mclaughlin to everyone: 10:30 AM

NSSDCA has the same question as Ed's about enhancing information already in system and archived and avoiding re-doing previous data.

from Jordan Padams to everyone: 10:31 AM

+1 we can try to work out a software solution to help those migrations

from Jordan Padams to everyone: 10:31 AM

or updates I should say

DDWG Notes 2024-02-15

title: DDWG Notes 2024-02-15

layout: default

date: 2024-02-15

February 15, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, L. Huber, T. Hare, R. Joyner, D. Kazden, J. Mafi and B. Semenov
Known Observers: A. Bailey, B. Hirsch, E. Schaefer, M. Seritan and M. Tiscareno

DDWG Agenda

(Included in email sent February 14, from J.Mafi, Agenda for February 15, 2024)

Front-matter/What's new

1) Submitted to the CCB:

- CCB#15 (JIRA-CCB-356) – Author/Editor List
- CCB#16 – Add mA and microA as Units_of_Current
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

2) New issues in GitHub:

- CCB#24 – Reform unit definitions
- CCB#25 – Reform Units of Misc, Units of None, and Units of Rates
- CCB#26 – Fix definition of Units of Amount of Substance
- CCB#27 – DOI requires at least an author or editor

3) SCR Freeze date: 2/12/24

(Discussed)

Ready for Vote

- None

Tier 1 issues

- CCB#4 – Backwards Incompatibility policies – Mike Drum Presentation: Backwards Compatibility
- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum
- CCB#5 – Move to V.2.0.0 for December 2024 Release
- CCB#10 – Schematron/Schema Version Conflict Need volunteer to provide language for SR
- CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#21 (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases
- CCB#22 (JIRA-CCB-164) - Display Settings not required for images -- (IMG) Trent will take another look at this One issue was the one-to-many reference to make sure it made sense for multiple image objects
- CCB#23 (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum
- CCB#18 – Never finished JIRA-CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational) E-vote on lien Fwd to Ron
- CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational) Fwd to Ron

(Discussed)

Tier 2 issues

- Product Metadata Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata
(Discussed)

Parking lot – need a driver!

- JIRA-CCB-326 (link) - Inconsistent Direction on How to Use Discipline Facets

- RS: 259/281 (see new attachment to JIRA-CCB-281) (on hold)

- JIRA-CCB-364 (link) – Disallow bundles referencing collections by LID **(Not Discussed)**

Historical links:

Export of history: [https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!!CgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvLxoK5UN6JC11yilSooek1oAq6hO1DbKil\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!!CgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvLxoK5UN6JC11yilSooek1oAq6hO1DbKil$)

Backup: [https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!!CgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvLxoK5UN6JC11yilSooek1oAq6hCSa_vAi\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!!CgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvLxoK5UN6JC11yilSooek1oAq6hCSa_vAi$) (limited seats)

Next meeting: 2/29/24

DDWG

Prior to the official start of the meeting there was a brief discussion about tracking SCRs. Ron added a "ready to vote on" column to the tracking. There are three SCRs now ready for a vote. The TAs have been done. They are not on the agenda for a vote today.

~ Today we will do a survey of SCRs and their status and check priorities for what we want to work on next.

Front Matter

Joe Mafi's first meeting as the new DDWG Chair.

Thank you to Mike for his service the last few years and for the help moving forward.

Three SCRs have been submitted to the CCB - 15, 16 and 20. Unclear when the CCB discussion will end or the current status.

~ Author/editor list is being voted on this week. We will probably know something by the end of the week. There have been some concerns.

~ Liens and the timeline seem to be the issues. Need to solve the liens.

~ The updates were made. Need to post them. Ron sent them out for comment this morning.

Instrument package hasn't been officially bounced back, but effectively.

~ CCB said it needs to be discussed at the F2F to figure out what people actually want.

~ That's unfortunate.

There are four new issues in GitHub. Three are issues related to unit definitions and that sort of thing.

Seem pretty straight forward, but discussion on the format of the descriptions was requested.
Action Item - Everyone should look at CCB#s 24, 25 and 26, so we can give advice next time.
~ There is some busy work to get these done. No need to rush, just want to make sure to do what the DDWG wants before doing the busy work.

The fourth new issue in GitHub is CCB#27 - DOI requires at least an author or editor. Proposes a new schematron rule to require if there's a DOI that an author or editor list is included.
~ This depends on if author/editor list is approved.
~ Even if the old way is deprecated it wouldn't be removed.

There are three SCRs to vote on next time that have TAs done - CCB#s 18, 25 and 26.

CCB#18 - Never finished CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational). This was from Trent. It goes back to expanding support for video - products browse and ancillary. There's another one for documents (#19 - Never finished CCB-325 documentation updates (Title: Support for video and audio as product observational).
~ Ron is working on that. We can vote on #18. It's more of a bug fix.

The other two SCRs are about units.
Action Item - Everyone take a look at CCB#s 18, 25 and 26 and be ready to vote next time.
~ CCB#s 25 and 26 are separate actions so they are separate issues. #25 is more questionable than #26, so look more carefully at that one.

Remaining Issues

We will go through the list of SCRs and check their status - decide what to work on next, see what's close and what might need to be moved to GitHub that people might want to champion.

##CCBs #3 (Adopt Semantic Versioning with version 2 transition), #4 (Implement policy around backwards incompatible changes and major version transitions) and #5 (Move to 2.0.0 for December 2024 release)

These are all linked to the move to version 2.0. The issue is that CCB#5 has a target date of December 2024.
~ That should be bumped. That would be the build we are working on now. We are not ready yet, but will drive forward. Regarding non-backwards compatible policies, the presentation has been amended. Ready for more discussion. Not overly complicated.
~ Someone thinks it might be useful to have a discussion on these at the F2F.
~ Another person agrees - if there are any low level concerns the DDWG can work through them in the comments and then have a more high level discussion at the F2F.

CCB#10 - Schematron/Schema Version Conflict (PDS-JIRA-366)

Ron is researching if it is even possible using schematron. Both are in the pre-amble. Back burner for now. Just not sure how to do it.
~ It seems like they should match.
~ It is curious that validate checks it.
~ Someone is pretty sure that Jordan said it did.

Question: If validate checks it is it important to have a schematron rule?

Answer: Someone would think it's a validate warning.

Another Question: If schematron is not required is there an issue here?

Answer: Not sure there is, especially if it requires a lot of work.

~ Someone believes Jordan just wanted a statement in the SR.

~ There is text in the attachments for the SR and DPH.

Maybe this can just be moved forward.

~ It needs a TA. ****(Action Item - Steve)**** ~ There is a TA column in GitHub to let Steve know to do it.

CCB#12 - Document Nuances for Reusability of Generic LDD Classes/Attributes

Unclear what the status of this is. It is something that someone likes to do a lot with LDDs.

~ This might be from Steve or Dick. (They are not here today.) ~ This seems like something the Steve would be concerned about.

CCB#13 - Ensure file name and directory path name adhere to SR

There are four issues in the comments. If we can get answers the schematron, DPH, etc., can be modified and we can push this forward. If we can do it today that would be helpful. The first issue is simple. In an attachment. Directory path name - question is if it includes a slash. A yes/no vote.

~ Someone has concerns. Would like to look at this for the next meeting.

~ Dick had concerns too.

~ We can wait. There is an example to look at.

Someone wonders what the implementation is. Viper wants to use dictionaries.

~ That's issue number 2. Someone wanted to say No. It takes a lot of schematron rules.

~ Unclear if Viper still wants this.

~ They might move to underscores. Unsure.

~ PPI just did a Clipper review with a dot in the LIDs. In the bundle root name. Not sure if that's just for the ECM instrument or the policy for Clipper.

~ SR is clear that dots are not allowed in directory names.

~ That was pointed out to Viper.

~ PPI will tell Clipper ****(Action Item - Joe)****

Question: A lot of this is not captured in GitHub. Is it in Jira?

Answer: The Viper issue just came up.

~ Came up as part of a discussion when someone saw slashes.

~ SR Chapter 6 talks about slashes.

~ The character set doesn't include slash or dot.

~ Slash is a divider between directory and sub-directory. The question is really about directory path name and SR kind of implies yes.

We need to discuss this. People should look at the four issues for next time.

CCB#21 - Provenance LDD Using PROV-DM (JIRA-CCB-367)

This is from Steve. We probably can't discuss it without him.

CCB#22 - Display Settings not required for images (JIRA-CCB-164)

This was from Anne. Trent and Ron are looking at it.

- ~ Looking to see what can be done. Maybe a couple of things, but worried it will be bad.
- ~ Someone agrees. Started work on the schematron.
- ~ Not everyone is understanding how it will work. Unsure how to do it. No asterisks in XML.
- ~ Someone is asking how to implement in schematron.
- ~ We need to figure out how it will function before we write rules. People are currently abusing this. Looked at trying to see how to make it work. Steve suggested compound, but not sure.

Question: Can this be done with local references?

Answer: Can only have one. Think there are some technical issues here. Not sure if people have strong feelings on this. It's an imaging issue. Don't want to be overly constrained. Ran across this recently with HDF files.

Another Question: Are those legal?

Answer: Can be uncompressed raw.

- ~ Thought not fixed length.
- ~ Someone thought they were.
- ~ HDF5 is close to something illegal. Better check.

Someone thinks they remember discussing this and it made sense. Wanted multiple instances of display settings and multiple arrays and which applies to what.

- ~ Yes, but prefer one display settings that point to many.
- ~ Might need more than one. We want an elegant solution.
- ~ Schema rule. The original issue seems to be that display was never added because we couldn't find an elegant way to do it. Think we punted.
- ~ Everything is supposed to be explicit instead of implied in PDS4.
- ~ Composite would probably work, but afraid it would break readers.
- ~ Might just be a container.

Someone sent Trent a FITS file they are working on for cubes. Many planes in a cube with the same display direction.

- ~ Trent will look at it. Technically, every array should have it's own display.
- ~ Want to require that, but not over populate the label.
- ~ Someone agrees. We need a solution. It will come up, but unsure how to do it in XML.

We should discuss this at the F2F.

- ~ Someone agrees.

Originally thought this would be easy.

- ~ That tends to be the case with things that linger.
- ~ Might not be backwards compatible and go into version 2.0.
- ~ We need to be creative.
- ~ Don't want to break the XML rules.
- ~ Let's discuss this later.

CCB#23 - XML/schema based files as archival data (JIRA-CCB-211)

Unclear what the status of this is. Think there is data coming in already.

~ Not yet. This has been back burnered. Intending to get back to this. Should get through the 2.0 issues first, but this is relatively well defined. Needs more discussion.

~ There is no project pushing for this.

~ Unaware of any, but there have been some hacky cases where people used it.

~ InSight used XML. GEO wanted this. High priority for them.

~ There's a framework for this. If someone wants to champion it they can feel free.

CCB#18 - Never finished CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational)

Ready for a vote.

CCB#19 - Never finished CCB-325 documentation updates (Title: Support for video and audio as product observational)

Related to CCB#18. Pretty straight forward.

Ready for a TA.

The browse and ancillary one seemed straight forward.

~ There are lots of open issues.

~ Just documentation. Think the main thing is the policy update.

This needs to be on the agenda. Two MC policies. DDWG can vote on number 4 in the Requested Changes, but the others are policy for the MC to decide.

~ We already asked the MC to vote. The policy said something like to check every ten years or so to make sure they still work. See the attachment.

~ Voted on it at a F2F. The policy update is pretty benign.

Question: Do we want a new policy update?

Answer: Just need to make sure everyone agrees.

~ For number 4 it's the documentation. Really bug fixes.

There was some confusion over this.

~ The DDWG voted, the MC approved. Think we're good.

Question: Can you write a comment to the documentation on that?

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

Once the updated policies are approved, need to tell EN to post them on the policy page.

~ The MC already said yes. Not sure they will want to see this.

~ Need to make sure nothing here is above and beyond what they approved.

Action Item - Trent will look back at the original presentation and try to post it.

Product Metadata Errata and Superseding

Question: Is there an SCR for Product Metadata Errata?

Answer: It was an idea. Hasn't grown legs. Can probably die. Was to allow for things like updating an original label without updating it. Like an errata. Corrections.

Another Question: Was it intended to overwrite the original label?

Answer: Thought it would be like product supplemental, but it wasn't fleshed out. It was to update an older version.

~ To fix things that are already released.

~ Yes, without incrementing the version. To include corrections and point to new LIDs or other things relevant to the label, but this has been solved by versioning.

This brings up superseded. Versioning without a direct tie. There are folks working on virtual labels that point to an existing file. Imaging arrays - RBG order. Might be out of bounds. Probably not useful for the archive.

Question: Would it be for annex?

Answer: Could have multiple labels for data product with different flavors, but maybe taking PDS4 too far.

~ This reminds someone of that thing Mitch wanted to do with half products. There are lots of cool ideas out there, but we need a registry first.

Question: Remove this?

Answer: Yes.

Question: Is anyone going to take on the idea of superseded? Do we have a capability to say this supersedes that - a better product to use?

Answer: Someone thought equivalent versioning.

~ Someone else thought Jordan was talking about something. Had a problem with InSight where the LIDs changed between versions and needed to connect them.

~ That was done by adding an alias, but no forward reference.

~ So, we have a mechanism, but it's not very satisfying.

~ Product Metadata Errata was a stab at it.

~ Someone thinks Jordan worked on a registry solution.

~ Someone else thinks that's true.

Our time is up. We will have some votes next time. February 29.

DDWG Notes 2024-02-29

title: DDWG Notes 2024-02-29

layout: default

date: 2024-02-29

February 29, 2024

Notes by Debra Kazden, followed by Meeting Chat

Known Attendees: M. Drum, E. Guinness, L. Huber, T. Hare, S. Hughes, R. Joyner, D. Kazden, J. Mafi, B. Semenov and R. Simpson

Known Observers: A. Bailey, B. Hirsch, P. Lawton, E. Schaefer, M. Seritan and M. Tiscareno

DDWG Agenda

(Included in email sent February 27, from J.Mafi, Agenda for February 29th, 2024)

Front-matter/What's new

1) Submitted to the CCB:

- CCB#15 (JIRA-CCB-356) – Author/Editor List
- CCB#16 – Add mA and microA as Units of Current
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

2) New issues in GitHub:

- None

3) SCR Freeze date: 2/12/24

(Discussed)

Ready for Vote

1) CCB#18 – Never finished JIRA-CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational)

2) CCB#25 – Reform Units of Misc, Units of None, and Units of Rates

3) CCB#26 – Fix definition of Units of Amount of Substance ****(Voted to pass #18, Discussed #25 and #26)****

Tier 1 issues

4) CCB#13 – Ensure file name and directory path name adhere to SR

5) CCB#24 – Reform unit definitions

- Needs DDWG advice on definition formation rule

6) CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational)

- Need to verify that required PDS policy changes have been approved by the MC

- Needs TA

7) CCB#27 – DOI requires at least an author or editor

8) CCB#4 – Backwards Incompatibility policies – Mike Drum

- Presentation: Backwards Compatibility

9) CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum

10) CCB#5 – Move to V.2.0.0 for December 2024 Release

11) CCB#10 – Schematron/Schema Version Conflict

- Need volunteer to provide language for SR

- 12) CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
 - 13) CCB#21 (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes
 - Still looking for use cases
 - 14) CCB#22 (JIRA-CCB-164) - Display Settings not required for images -- (IMG)
 - Trent will take another look at this
 - One issue was the one-to-many reference to make sure it made sense for multiple image objects
 - 15) CCB#23 (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum
- **(Voted to pass CCB#10)**

Tier 2 issues

Product Metadata Errata?

- Create a supplemental label to live next to original label, that can add aliases and supersede metadata
- **(Not Discussed)**

Parking lot – need a driver!

- 1) JIRA-CCB-326 (link) - Inconsistent Direction on How to Use Discipline Facets
- 2) RS: 259/281 (see new attachment to JIRA-CCB-281) (on hold)
- 3) JIRA-CCB-364 (link) – Disallow bundles referencing collections by LID ****(Not Discussed)****

Historical links:

- Export of history: [https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaRol27P\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaRol27P$)
- Backup: [https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaYaf-Ca\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaYaf-Ca$) (limited seats)

Next meeting: 3/14/24

DDWG

Front Matter

Received the news from the CCB that #15 and #16 have passed. There are concerns about #15, but it passed. There was some question about getting these into the next release because they passed very late.

~ Both should be included. EN hasn't started the implementation yet. But we need to reign ourselves in for the cut off dates in the future.

~ It does have a tendency to creep. It's good news that these got in. Jordan was pushing for #15 and #16 was a pretty simple addition.

We have three listed as ready for a vote today, but based on discussions maybe two of them are not ready.

Ready for Vote

CCB#18 – Never finished JIRA-CCB-325 "lien" for browse and ancillary (Title: Support for video and

audio as product observational)

This is an extension of support for video over to browse and ancillary products. There was a question about the status of the MC policies.

~ Someone was unable to find the presentation. Not 100% sure of what we voted on, but we did vote. Tried to look in the MC meeting notes, but didn't have access to all the folders.

~ Someone else said they should have it.

~ The vote was probably during the executive session.

~ Might be a provisional vote. The issue is that we want to make sure the changes here are what were approved by the MC.

~ This is a bug fix for what was passed a year ago.

~ Someone agrees.

Question: Did the MC approve the policy change?

Answer: Yes. MC helped craft the policy that every 10 years or so we make sure.

~ The policy on the website is not updated.

~ There is an SCR for updates to those documents.

~ Don't think this needs to go to the MC.

~ Someone's recollection is that this was approved by the MC. Think their main discussion was about what changes to allow for data products.

Question: Aren't we talking about video as a data product?

Answer: Video as a data product is already approved. This is to allow for browse and ancillary.

Question: Other questions or comments?

Answer: Someone found the presentation to the MC in St. Louis. Put it in the chat. (See chat at the end of the notes)

****The Vote for CCB#18**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Not Here

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Abstain

SBN - Yes**

CCB#18 passed.

CCB#25 – Reform Units of Misc, Units of None, and Units of Rates and CCB#26 – Fix definition of Units of Amount of Substance

There has been a lot of discussion on both of these in terms of details of definitions and categories units are assigned to. Not sure how to cover all the discussion.

CCB#25

CCB#25 should be split into three SCRs. There are different issues for each one.

~ That is possibly true, but they would all depend on each other.

~ Someone thinks they are related. That's why they were put together.

Some of the changes discussed involved moving things between the different units of type and updating the definitions. Not sure how to discuss this.

~ Someone noticed this before. We had an SCR to pass some units. It was hard to ignore that things could have been better. Decided to look through the unit classes. Thought these three were in danger of being a catchall. There was a suggestion to have units of miscellaneous. Fine, but assumes we put them in because we had a use case. Looking at them it seemed that things could be refined. There was a suggestion to rename units of countable. There was discussion about SI units for units of none and units of rate. Looking at the classes, I think what we have is a hodge podge and it could get worse as more are added.

~ Good goal. Seemed like concerns are with how it's done.

~ When someone read this, philosophically it makes sense, but also read the TA and impact statement. Doesn't agree that it is minimal impact, especially if we change the name of units of miscellaneous. We would need to update the LDDs. Unsure if that will affect labels, maybe just LDDs, but there could be impacts. Cautionary tale. If we do this then the dictionaries will all need clean up. When the IM changes, dictionaries will all break. Stewards will need to be aware of this.

~ Oh wow.

~ That's a very good point. Regarding the TA saying there is minimal impact, that was for what TA person does. Changing the definitions of the units would be easy. Would deprecate if we move units around. Non-backwards compatible. Hadn't considered the impact to the LDDs.

~ Another person said that's totally right. Hadn't thought of that. It's a bigger problem than realized. Sees it as an argument to get rid of units of miscellaneous.

~ Philosophically, you are right, but if we do this stewards need to rebuild LDDs before the new IM.

~ LDDs will be impacted.

~ Labels shouldn't be heavily impacted. Just need to update the IM and LDDs.

~ That's how it's supposed to work.

We can now discuss specific changes.

~ Looking at the comments in GitHub seems like the direction we go depends on if we want to create a unit of gain and take the step to define things more directly. The point that this hodge podge could lead to a lot of nonsense.

Question: Aren't these really calibrations? Not sure I would call it a gain.

Answer: Different settings.

~ Don't see that.

~ Sounds like the impact statement needs to be expanded so the nodes can examine it. Important to move forward, but what actual changes to make also needs a decision.

~ We should form a Tiger Team.

~ Matt will be on the team.

Question: Other volunteers?

Answer: (Silence)

~ Joe will be on the team, but we need other folks too. We will table this for now. We need folks to volunteer.

One approach would be for the Tiger Team to come up with a specific set of changes and have the stewards evaluate how much work it would be or have the stewards look through the dictionaries to see how often used.

~ Will affect all dictionaries. If only we had a registry to tell us about all the instances.

~ That's probably do-able.

~ Was kind of joking. Hoped EN would jump in.

~ EN will check.

~ It might require that all data is in the registry. Not sure it all is.

~ There may be things in the dictionaries that haven't been used that would require changes.

~ Unsure if we can search dictionaries without searching all the data products. EN can help sort that out.

** Action Item - Steve** will bring this up at the EN meeting next week.

One data point - someone is not at all bothered by having a bucket to throw weird units into. The public doesn't see them anyway.

~ Someone agrees.

~ True, but DPs will be relying on them not to be dumb going forward.

~ We could rely on peer review to make sure they aren't.

~ The framers of this made a choice to have the bucket.

~ At some point we have to do our job and look at what the DPs give us. These classes got in the dictionaries.

~ If I have a gain state, it has to be in units of miscellaneous, and I as a DP have to give it to you in the correct units, not pixels.

~ Maybe we could use validate.

~ In the Cassini LDD it defines permissible values for units of miscellaneous. Maybe that makes this okay.

~ In the dictionaries it can be explicit. It just requires more work.

Someone is willing to be on the Tiger Team if EN will help. Thinks how it is done in Cassini is good. If all of them are done like that, maybe it's okay. Maybe we just need to remind stewards to use extra care if using this class.

~ Someone agrees.

We will set this aside for now. There is still some work to gage the impact. We can decide if the SCR needs to be rewritten.

CCB#26

There was also a lot of discussion about units of substance.

~ Amount of substance is a well understood concept with specific units.

~ It says it's mass, but that's not correct. Would like to find new wording. Would like to preserve flexibility. Maybe the words number of particles is causing the issue. Maybe it could be amount.

~ Could be quantity.

~ That's the point. Amount of substance is well understood in the science community.

~ Ascetic decision. Flexibility. Might suggest we vote on the amendment and then the SCR.

Question: Any use cases aside from mol?

Answer: Someone thinks it came from Susie. Think we need some informed opinion first.

~ Susie is long gone. Asked someone, haven't heard yet.

~ Let's hold off until we get more input, more use cases, more information on the original intent.

~ Yes, but we don't want to exclude future possibilities.

~ Someone thinks the general science community would be astonished. People should look at the Wikipedia entry for Amount of Substance.

~ We could also put in the definition or have this fight again if someone tries to add another permissible value.

(Conversation got very confusing)

~ Dick's amendment.

~ Add the Avogadro constant. A quantity of particles scaled by Avogadro's constant.

Matt put the amendment in the chat. (See below)

Someone never heard the term.

Should be Avogadro's number.

Treating mol as a unit.

Someone read about this yesterday. In 2019, SI defined it as a conversion factor. It shows how nomenclature has changed.

Someone else read the Wikipedia entry for Amount of Substance out loud.

We want the constant to get to units of mols.

~ Yes.

~ Or we could leave it off.

We should vote on if we want the Avogadro's constant in or out of the definition.

~ Let's get the wording correct and vote next time.

~ Yes. Vote next time.

Question: Any additional comments?

Answer: (Silence)

CCB#10 - Schematron/Schema Version Conflict

CCB#10 is ready for a vote. Probably not controversial.

~ This is the version conflict one.

~ Requires some verbiage in the SR and DPH to force people to use identical versions.

Question: The issue was how it's enforced. Validate can do it?

Answer: Yes. It would take a lot of effort to figure out how to do it in schematron. The bang is not worth the buck.

Question: Any last comments or questions before the vote?

Answer: (Silence)

**The Vote on CCB#10

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Not Here

NAIF - Abstain

PPI - Yes

RMS - Yes

RS - Abstain

SBN - Yes**

CCB#10 has passed.

Meeting Chat

from Matt Tiscareno to everyone: 9:41 AM

Video – Background

PDS4 does not support video as observational products Missions are generating Video as observational products Immovable object, meet unstoppable force

from Matt Tiscareno to everyone: 9:41 AM

Videos can be archived as Documents, if they are in the MPEG-4 Part 14 format

H/264 video format, AAC audio format. Both are lossy compression. Open source.

We may want to take this chance to also introduce direct support for compressed audio formats as well Specific video formats may need to be migrated on a sub-50-year timescale This is a practical numbers game – If we lose 0.01%* of the bits, we may be able to save 99%* of the money

*Specific numbers TBD

from Matt Tiscareno to everyone: 9:41 AM

We are going to go for it. This is your warning.

We will take several precautions to ensure that this new frontier cannot be abused to allow other lossy compressed formats into the archive We will build in obvious indicators for these formats to ensure they stay usable in 20 years

from Matt Tiscareno to everyone: 9:42 AM

11/22 MC F2F artifacts:

[https://urldefense.us/v3/ https://drive.google.com/drive/folders/1Csa27xfwOmxYL4WAczmMiRNbpQcvOyg4_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONY-g4_XQ\\$](https://urldefense.us/v3/https://drive.google.com/drive/folders/1Csa27xfwOmxYL4WAczmMiRNbpQcvOyg4_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONY-g4_XQ$)

from Matt Tiscareno to everyone: 9:42 AM

Therein, #8a Drum presentation:

[https://urldefense.us/v3/ https://docs.google.com/presentation/d/16XuB2gTxo3JRYXIElNbugrG3CNC D0XT9ydvqu3ZvzVg/edit*slide=id.p_!w!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONeHuZnSB\\$](https://urldefense.us/v3/https://docs.google.com/presentation/d/16XuB2gTxo3JRYXIElNbugrG3CNC D0XT9ydvqu3ZvzVg/edit*slide=id.p_!w!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7flCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONeHuZnSB$)

from Matt Tiscareno to everyone: 10:22 AM

Matt's proposed definition:

from Matt Tiscareno to everyone: 10:22 AM

Units_of_Amount_Of_Substance is a magnitude of quantity of chemically unique and identifiable

particles (atoms, molecules, ions, etc.)

from Matt Tiscareno to everyone: 10:22 AM

Dick's amendment is to add "normalized by the Avogadro constant"

DDWG Notes 2024-03-14

title: DDWG Notes 2024-03-14

layout: default

date: 2024-03-14

March 14, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, L. Huber, T. Hare, S. Hughes, R. Joyner, D. Kazden, T. Lim, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson
Known Observers: A. Bailey, B. Hirsch, P. Lawton, S. Loftin, E. Schaefer, M. Seritan and M. Tiscareno

DDWG Agenda

(Included in email sent March 12, from J.Mafi, Agenda for March 14, 2024)

We will have a DDWG telecon this Thursday, March 12th at 9:30 PDT (12:30 EDT, and 9:30 MST in Arizona). We will discuss the questions listed in Ron Joyner's 12/27/2023 comment for CCB#7, and likewise for the questions in Ron's 1/31/2024 comment for CCB#13 so that these SCRs can move forward. Please also be ready to discuss and vote on CCB#27, CCB#26 (including deciding between the two proposed definitions in the "Problem Statement" and in my comment of 3/12/2024), and CCB#25.

Front-matter/What's new

1) Submitted to the CCB:

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
- CCB#10 – Schematron/Schema Version Conflict
- CCB#18 – Never finished JIRA-CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational)

2) New issues in GitHub:

- None

3) Beta test dates: 4/23/2024 - 5/21/2024 ******(Discussed 7, 13 and 28)******

Ready for Vote

- CCB#27 – DOI requires at least an author or editor
- CCB#26 – Fix definition of Units of Amount of Substance
- CCB#25 – Reform Units of Misc, Units of None, and Units of Rates ******(Discussed 26 and 27)******

Tier 1 issues

- CCB#7 – Missing schematron rule to check that Product Bundle.Target Identification.Internal Reference.reference type is bundle to target
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#11 – Add a Funding Information class to the Identification Area
- CCB#24 – Reform unit definitions

Needs DDWG advice on definition formation rule

- CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational) Need to verify that required PDS policy changes have been approved by the MC Needs TA
- CCB#4 – Backwards Incompatibility policies – Mike Drum

Presentation: Backwards Compatibility

- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum
- CCB#5 – Move to V.2.0.0 for December 2024 Release
- CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
- CCB#21 (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases
- CCB#22 (JIRA-CCB-164) - Display Settings not required for images -- (IMG)

Trent will take another look at this

One issue was the one-to-many reference to make sure it made sense for multiple image objects

- CCB#23 (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum

(Discussed 7, 13, 11)

Tier 2 issues

- Product Metadata Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata

(Not Discussed)

Parking lot – need a driver!

- JIRA-CCB-326 - Inconsistent Direction on How to Use Discipline Facets
- RS: 259/281 (see new attachment to JIRA-CCB-281) (on hold)
- JIRA-CCB-364 – Disallow bundles referencing collections by LID ** (Not Discussed)**

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- Backup [https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!MvjAXBV0GTxoVmlub_NaKOvqxFjTjasYyaR_d39-fvtFIQ17okMTApuUhYARpnzTwJpdSreVluRjA_pelxRG4Scvr0oU-LU3\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!MvjAXBV0GTxoVmlub_NaKOvqxFjTjasYyaR_d39-fvtFIQ17okMTApuUhYARpnzTwJpdSreVluRjA_pelxRG4Scvr0oU-LU3$) (limited seats)

Next meeting: 4/4/2024

DDWG

Front Matter

We have a series of questions to decide for CCBs #7 and #13. If we can answer the questions then work can begin on the schematrons to support these issues.

CCB#7 - Missing schematron rule to check that Product Bundle.Target Identification.Internal Reference.reference type is bundle to target

The question is from December 29, 2023. It is suggested that we expand this to other product types to ensure values are consistent with the product type. Asking for approval.

~ Seems logical.

We could do a strawman vote if there aren't any questions or comments. A quick straw poll to approve the expansion.

**Strawman Poll to approve the expansion to the other product types:

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes

NAIF - No.** NAIF said this is changing something for Spice. Has a big impact for NAIF.

Could remove spice to target.

~ It could be required to be data to target.

~ NAIF needs a time out on this.

~ Strike spice kernel from the list pending NAIF input.

**Continuing the Strawman Poll:

PPI - Yes, with the amendment.

RMS - Yes

RS - (no answer - audio issues) (No)

SBN - Abstain**

Question: The proposal changed half way through. Does anybody want to change their vote?

Answer: This isn't just a matter of setting up new rules. We need to set up new permissible enumerated values, so voting no if it's still on the table. Don't want to see this happen now.

~ Someone is confused by that.

~ We would need to add target path in IM specification.

~ So, each is being proposed. Currently, the IM has schematron rules for ancillary to target and document to target. SCR suggested adding bundle and collection. This now is suggesting we go further and add each value to the list.

Another Question: Is ancillary to target currently an enumerated value reference type or would we have to add it?

Answer: The SCR isn't complete. It doesn't have the Requested Changes.

This is a strawman poll. Someone can go off and do the work and then we can vote on the final approval if that is okay.

~ Yes, if this is a strawman poll. We can flesh this out.

~ Someone else agrees. The actual SCR has no Requested Changes. Agree it is missing enumerated values that need to be added.

Back to Spice. It would make this easier if it could be added.

~ That will make it harder for NAIF. They have products with data to target. It will not be backwards compatible if we change from data to target.

Question: Would it be okay to make it officially data to target for Spice?

Answer: Yes. NAIF has been using that.

~ It will now validate.

The SCR will be extended to add additional product types.

CCB#13 - Ensure file name and directory path name adhere to SR

There is a question about the schematron rule to test for directory path name and path name. Not sure what we have decided. Need to answer the questions for this. Think ASCII directory path name makes sense. It allows the slashes. Unsure why it wasn't used when this element was first created.

~ Someone thinks some details with the forward slash, but thinks ASCII path name is probably a better way to go.

Question: Do we need to check with systems?

Another Question: About the terminating slash?

Answer: Thinking about issues they are having trying to parse data out across multiple machine types.

~ Seems like a bug - using the wrong attribute type. Potential issue. Need someone deep in the weeds to look.

~ In GitHub, the question remains unanswered if we can change to path name.

~ That doesn't fix the entire problem. Trying to get schematron rules to do better validation against the values.

Question: Are we manually re-implementing ASCII path name as type? Why are we making plain text act like a path name?

Answer: Question is if character set includes slash if we change this. Yes. Does not include dot. For the last question regarding terminating slash, unsure. We should ask Jordan.

~ ASCII directory path name meets the formation rule, but doesn't magically write the validation rules. Think we should do what directory path name says. Technical details can be addressed from there.

Question: Are there still any issues preventing the writing of the schematron rules?

Answer: Character set includes slash, does not include dot. Dot and double dot are not allowed. Ending in a slash is fine. Can change data type to use the proper character set, if we all agree, the schematron rules can be updated to enforce what the SR says.

~ Someone would like to do a strawman poll to change the directory path if there are no questions or comments.

**Strawman Poll to change data type to ASCII directory path name and update the SCR:

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Yes

SBN - Yes**

We will get that moving forward.

New SCR

CCB#28 - As a user, I want validate to allow delimited tables with whitespace-only numeric fields

This was added two days ago. The problem is that GEO has CSV files that are space padded and validate is throwing errors. DSV standard is not clear. There's another update that needs to be made to clarify how padding spaces are counted. Unsure if there are any objections to saying that is allowed.

~ The DSV standard came from Todd King. We should look at it carefully.

~ Spaces have always been an issue. Someone sees no problem with leading and trailing spaces.

~ That depends on the application reading the files.

~ True. Just wanted to see if any objections to the change. People can speak up or add comments in GitHub.

~ Not everyone has read it yet.

Ready for Vote

CCB#27 - DOI requires at least an author or editor

This had been waiting on CCB#15, which passed.

Question: Any question or comments?

Answer: Someone thinks this says we will require author or editor list, but we are using list author or list editor. That's pretty important.

~ We were waiting for CCB#15, so the schema and rules were modified for both attributes and classes.

~ Another person had that same question. Couldn't find that. In the Requested Changes it needs to be clear to do the TA. Fine, if it's clear.

The SCR needs to be modified to add list author and list editor classes as alternatives.

~ A lien.

~ We could vote with a lien.

A number of questions were posted yesterday. We need to address those.

~ Extended for scope (speaker spoke very fast. Note taker did not catch it all. See GitHub) ~ The problem is with documents. They can be problematic. Two areas for author/editor. Someone could put the DOI in the wrong part.

~ If we drop document the problem solves itself.

~ But we have documents with DOIs. Things like user guides, where we would definitely want the author/editor list.

~ Sounds like we have more work to do.

Let's vote on if this is only constrained to bundle and collection.

~ And documents with PDS issued DOIs.

Question: Can we enforce that programmatically?

Answer: No. Would need to be peer review. Could put it in the SR.

~ This needs updates.

~ If we include document with PDS DOI here there's no way to enforce. We would have to enforce it across all documents.

Another Question: Doesn't PDS have some control over DOIs?

Answer: The PDS preamble.

~ Would mean parsing DOIs to do validation.

- ~ Would get ugly.
- ~ Yes, but seems like that's where we are heading.
- ~ Nodes have used several different organizations for issuing DOIs. Could get complicated.

This needs to marinate longer. We need to figure out how to address these legitimate concerns.

We are implementing the approved SCR. Now we are talking about additional schematron rules to implement. Wonder if we need some constraints.

- ~ Implementing CCB#15. That has nothing to do with DOIs directly.
- ~ If it's not an issue, okay.
- ~ This SCR is for if there's a DOI. CCB#15 just swaps in list author or editor. That can be implemented.
- ~ So this is further constraint we might want down the line.
- ~ Yes, if there is a DOI.

CCB#26 - Fix definition of Units of Amount of Substance

We need to have a few votes. Need to decide if the definition will include reference to Avogadro's number.

- ~ Calling it Avogadro's constant.

Question: There is a proposal in GitHub, a comment from RS on March 13. The alternative is in the Problem Statement. Any thoughts on this? Explicit mention of Avogadro's constant or not?

Answer: Bob Deen has added comments.

- ~ He gives us an out.
- ~ The point was made that we might need a chemist to weigh in.
- ~ Someone thinks that was from GEO because they are archiving laboratory results. Think it's always with Avogadro's constant. We need someone in the chemistry community to comment on this. Don't like defining things we don't know about.

If normalized by Avogadro's constant is in the unit definition it should go in the definition of each enumerated value. Would prefer quantity. That's general enough.

- ~ Not proposing to add.
- ~ Problem Statement for the SCR is author's proposal. Updated after our last meeting.

Strawman Poll - change the definition or not. If want to wait for expert opinion - abstain and say so.

**Strawman Poll - vote to include mention of Avogadro's constant in the definition or not. Abstain if want outside comment:

ATMOS - Not Include

EN - Not Include

GEO - Not Include

IMG - Not Include

IPDA - Abstain

NAIF - Not Include

PPI - Not Include

Rings - Not Include

RS - Abstain

SBN - Abstain**

Strong majority to not include Avogadro's constant in the description. Would like to postpone the actual vote until next week and someone can get expert advice.

Tier 1 Issues

CCB#11 - Add a Funding Information class to the Identification Area

This is an issue to start moving forward. There have been some comments. Bob Deen talked about adding organization for funding provided if not a PDART. Unclear if that is prohibited by this approach. Seems like the funder could be an organization or a grant.

Question: Any thoughts on this?

Answer: There was a comment on January 16. Memory is that we did implement and it's done, but ticket got migrated. Needs to refresh them-self, but thinks this is already done.

Question to Steve - This was CCB-355. Now CCB#11. Is this already implemented?

Answer: Steve doesn't remember - will do some research on this ****(Action Item - Steve)****

Our time is about up for today. Two weeks from now is the MC, so the next date we can meet is April 4.

Question: Any problem with that?

Answer: That's in three weeks. It changes our stagger.

~ We could wait four weeks and meet April 11.

Another Question: Any objections to changing the stagger?

Answer: Fine if Vivian changes the invitation.

Question: One quick last issue. CCB#24 and CCB#25 need Tiger Teams for units. Currently the team is Matt and Joe. Does anyone else want to join?

Answer: Dick will join the team.

Another Question: Anyone else?

Answer: (Silence)

Back to CCB#11 - we implemented a funding acknowledgment class, which is very different from CCB#11. Question is if we think CCB-355, which wasn't migrated, is sufficient. Should look and see if what was implemented is sufficient or if we need to add funding information class.

~ There's a link to the original issue. We can compare them and see.

Steve can confirm that in build 13.1 funding acknowledgment class was implemented.

~ It looks very similar to funding information class. Might need to modify the one we added. Will add a comment in GitHub ****(Action Item - Joe)****. This is from Jordan. Will see if we need to make any changes or if this can be closed.

Next meeting April 4.

DDWG Notes 2024-03-26

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March 26, 2024

Notes by Debra Kazden

DDWG Agenda

(Included in email sent March 25, from J. Mafi, PDSMC DDWG Workshop Session Agenda)

****1st Session (12:30 PM - 2:00 PM MDT):****

~1 hr - CCB#20 Instrument Package discussion

~20 min - GitHub "Gotchas" presentation and discussion (Ethan Schaefer)

****2nd Session (2:45 PM - 4:15 PM MDT):****

1.5 hrs - Transition to PDS4 V.2.0.0 discussion

DDWG F2F Discussion

#1st Session

There has been a lot of discussion on instrument packages in the DDWG. We have gone round and round. Hopefully today we can answer some of the questions. After that, Ethan will give a talk on GitHub gotchas. In the afternoon we will discuss the transition to IM version 2.0. There are slides to set the context for the discussions and issues.

CCB#20 Instrument Package discussion

****Slide presentation "PDS Management Council, DDWG Workshop, CCB#20 Instrument Package"****

****Slide 2 - Background****

CCB#20 was CCB-358. Instrument packages as a new type of host.

****Slide 3 - Example 1: New Horizons Ralph****

Two separate instruments that are one package - MVIC and LEISA.

****Slide 4 - Example 2: Cassini MIMI****

Three instruments - CHEMS, INCA and LEMMS.

****Slide 5 - Example 3: Ulysses COSPIN****

Five instruments - HET, HFT, AT, LET, KET

These are groups of instruments.

****Slides 6, 7 and 8 - More Instrument Package Examples****

Unclear if it is appropriate to call NAVCAM an instrument package.

****Slide 9 - Product Label Example****

This is one person's idea of how it would work. Different people have different ideas. This person sees observation system with component for package. There are questions about how faceted search is presented to users, but it is metadata that can be searched on.

Question: Is this how it will work?

Answer: Assuming we have aliases in the system, it could figure it out. More explicitness is better. It's a question of complexity.

~ Also of intent.

~ If a person searches INCA, they should get MIMI. The system needs to know about both.

Another Question: Any discussion on calling the type package instead of host?

Answer: Inconsistent with how other things have been handled.

~ Both being host makes more sense when you see the entire label.

~ So, there would be internal references with reference types.

~ All being hosts is confusing, but a whole other complication.

~ Instrument is confusing too. They don't say what type, just instrument.

Labels should say the data type. Calling two things host means user needs prior knowledge to understand what those are. Program won't be able to figure it out. Will need to know the relationship. Also unclear how helpful "host" is anyway. "Spacecraft" has meaning. It requires the PDS registry to resolve it.

~ The registry, some tools, will dig down and resolve. It depends on how things are done and the search tools.

~ We are talking about a larger issue.

Online Question: My labels just have instrument. Relationship with host is resolved with the context products.

Answer: PPI used to do that too, now being more explicit. Not required. Could be a best practice for PDS. It is possible from just the instrument to determine the spacecraft etc, but not every search tool will do that.

****Slide 10 - Context Product Example****

This is where relationships are defined. LID reference references instrument package. Goes to spacecraft, individual instrument then references back to instrument host in this example. It describes the hierarchy between the relationships.

Question: Can you have more than one thing in the hierarchy? (Example with stereo cameras)

Answer: Don't think that would be prohibited. Now hosts that are subsystems of host, presumably could nest. Good point to bring up.

~ Prohibited by design of the context products. Relationships are pre-defined.

~ Currently can't do instrument host to instrument host. One of the proposals is to add that. Wouldn't stop multiple levels of instrument package.

This discussion seems backwards. Instrument host to instrument host being allowed to be recursive. People objected to instrument type of package. Doesn't seem like the important part. Other ways to solve this, like Cassini UVIS or ISS as channels. Archiving as one instrument with several channels. Could be good reasons not to do Ralph or MIMI like that, but seems it's all details.

~ For MIMI there is a MIMI instrument context product and context products for CHEMS, INCA and LEMMS. It works fine from a metadata standpoint, but you lose the relationships that LEMMS is part of MIMI. Only get that if you dig into the LID.

~ That's not true. Could download the context product. It should have some information presumably.

Slide 11 - Questions and Concerns

Bullet two is supposed to be is there another way to do this. Alias list was brought up. Another person also had another idea. Think the discussion had boiled down to looking at possibilities.

~ Seems like sub-instruments could use instrument package as a tag.

~ The discussion was that we didn't want a new context product.

~ This is a new contest product, but it only shows up in context product. Things referencing it won't know about that. The question is how much responsibility we want to have. The context products are maintained in the system. Crucial for connecting things. They need to exist and be smart, but the counter is that a product should know everything about itself.

~ So you could retrofit and not affect the product labels at all.

~ Could add references, but wouldn't have to. Someone likes the idea of having names at higher level available.

~ This doesn't necessarily imply the instrument hierarchy. An alternative way to solve this might be to make it into child instrument host, maybe parent too. To be more clear. Could drill down that way rather than have everything be a host. Could build that in better.

Question: Thoughts? To specify instrument of instrument host to instrument host with child to parent?

Answer: Those are always one directional.

~ Shows the hierarchy.

~ Haven't added....

~ Built into instrument host to instrument. Directionality is in the documents, not really the metadata. Would give it to you.

~ Not actually one direction. All cross reference types exist.

~ Instrument host to instrument is one directional. Can calculate the other direction.

Question: A reference that goes in one direction?

Answer: Context products have the bi-directional relationships. When duplicate hierarchy they become a circular relationship. Standard values when coded in.

~ We've got a relationship. It's one directional. We give it a name. Could form best practices that the direction is down.

~ We're talking about direction and hierarchy. Hierarchy is expressed by English. Parent/child relationship is not explicit in the model. Could also add a second attribute to explicitly define the parent child reference. It's captured in English, not in the system.

~ Someone said they prefer to keep it simple. If put parent/child we could validate.

~ At a low level, if you look at instrument host to instrument and vice versa, then you discover the

parent and child. It's bad modeling practice to use types to be hierarchical.

~ It should be explicit.

~ As reference types grow it becomes less obvious.

If we get all the connections in the context products we don't need to clutter the labels.

~ This is all in the context products. Label would just have LIDs and names and type. Types here are just instrument, host, etc.

~ What's missing is reference.

~ Going the right direction. We had this discussion years ago. Didn't implement hierarchical relationships explicitly before. We need to be able to describe relationships.

Question: Why do we need to define the relationships? The information is in the registry for what purpose? Not sure why we need to put in the effort for this level of information. We have facets in search. Need name resolution service. Something about the names and a way to understand in a broad way. This just seems like a lot of text.

Answer: Supports different user stories. Someone who knows they want INCA can get it, but could go through MIMI as a different pathway. System can link together all the related information.

~ In twenty years, when a user wants to read about Psyche (mission, instrument, target - Psyche, Psyche, Psyche) they select something, learn they want PDS, and then the question is how we give them what they want.

~ Chatgpt.

~ We are putting explicit information into the context products and labels. The more specific the information, the more accessible to get people where they want to go.

~ Not just users or DPs, it's also for building search.

~ Tools need hierarchy. Need all the information.

~ EN could mock this up, show how the Psyche landing page could work.

~ If you have to have access to the PDS registry to discover the different information, the worry is that it might not continue to exist in 20 years, but a label will, so we should have all the information in the label. Don't want a user to have to go to a context product.

~ We used to have that in labels and took it out.

~ Yes, unhappy about that.

~ Someone agrees.

~ Generalities are being pushed to the labels, specificity is in the context products.

Question: For New Horizons Ralph, what's the best solution?

Answer: Just another level in the hierarchy that says this is related, with information about Ralph.

Another Question: Of all the proposed solutions?

Answer: New context product.

~ Someone agrees 100%. So for Cassini MIMI INCA, Cassini is host, MIMI is host and INCA is instrument.

~ MIMI is not defined.

Another Question: So MIMI is child of Cassini? Impossible because it's not a host. Has to be something else.

~ Sub-types.

~ Strict hierarchy.

~ In the history of ideas there was opposition to instrument package.

We have six types of instrument hosts, including balloon.

~ You can't put that in a label. Just host.

~ That's what context products are about.

Question: What's stopping us from distributing the context files? Why are we assuming we are all losing our minds and getting rid of the registry in 20 years?

Answer: Problem with catalog files in PDS3 too.

~ Don't see why we can't distribute the context files. If the relationships are in them.

~ ATMOS includes the context collection in all bundles.

~ Not all nodes are doing that. Products only know about LIDS.

~ If we require people to use our system then we fail at being findable. We will eventually be down to products with DOIs. That opens the possibility of people going straight to products and not having the basic information to use and understand the data. It doesn't meet the requirement for FAIR and open data.

~ It's job security. No one should be going to a file system. Just need to build tools. That is our job. To abstract away the complication.

~ Then the logic underlying the relationships has to be sound.

~ Originally, all the information went into the context products. All details, relationships, but what you promote to a label is a DP choice. Most information is in the context products.

~ User should not have to go to another document to understand a unit of measure. Context products are for more information see sort of thing.

Another issue is where ground zero is. Where the master copy is. If it's in a label that's a problem.

~ One node worries about putting context products in a bundle for that reason.

~ Just include LIDs in an inventory.

~ If you have VIDs could make replications.

~ Would need to make sure it corresponds.

Someone appreciates all of the input, but we are further from a solution now.

~ A strong case is being made to go back to the proposal to have type instrument package. Instrument host to instrument host disrupts the hierarchy of parent to child.

~ Reference types and context types are different things. Part of the proposal on GitHub is to add instrument package type. On the question of if there is a need to address this, it seems like there is.

~ All of the hierarchy information is in the IM.

Question: What if an instrument is on two spaceships?

Answer and Another Question: We had that on GRAIL. If we go back to the proposal for instrument package as a new type who would vote against it?

Answer: It depends on the proposal. There are types and sub-types. Still a question of what links to what and what's in the label. If instrument package is generic, it could have a more specific sub-type, but that might not be enough detail. Another example is CLPS. Has lander, spacecraft, experiments. One is made up of a station with three rovers, so three rovers with different instruments. Several layers there.

Multiple layers of hierarchy there. Several layers of relationships. Some things are relevant.

~ Someone wants to remind everyone that some people are using sub-channels.

~ That's what we did in PDS3. Called it a mode. It doesn't reflect the relationships.

~ All the nodes did something different.

Question: If we go forward with this, do we have to go back and fix everything?

Answer: The policy is up to each node.

~ There will be confusion.

- ~ LIDs of things that go from instrument to instrument package would change.
- ~ There's no logical reason why that should happen. This is about programmatic access.
- ~ We're confusing types and relationships. In the past we gave short shift to types.

We need to cut this off. We will work on it in the DDWG. Very good recommendations today.

GitHub "Gotchas" presentation and discussion (Ethan Schaefer)

Ethan shared his screen to show his presentation.

****Problem 1 - GitHub supports manual entry of some HTML tags.****

It's a problem because angle brackets hide some text in GitHub. It makes some comments very hard to understand.

~ It's very easy to fix.

Question: Is PDS GitHub?

Answer: This is about how GitHub works. We can't change this. Just informing people.

~ GitHub is used to track CCBs, LDDs, everything.

There can also be a collision of HTML tags, like when bolding something.

****Problem 2 - GitHub removes leading spaces****

****Solutions****

For problem 1 - a backslash can be used to escape the first angle bracket.

~ For problem 2 - could format it as code. Just select the code button.

****Problem 3 - Cross user comment edits**** Everyone can edit everything in GitHub. We could adopt the idea that it's okay to correct things. There would always be a record, no matter what we decide. This is GitHub behaviour. Edit history is available.

Question: Any questions or comments?

Answer: This is super helpful. GitHub is very transparent. Can edit other peoples comments. Record is always there. A related issue is that there is always one comment at the beginning and it can be edited too. Always transparent - at the top right you can view that.

~ Sounds good.

2nd Session

Transition to PDS4 V.2.0.0 discussion

This presentation is to set the discussion.

****Slide presentation "PDS Management Council, DDWG Workshop, PDS4 V.2.0 Transition"****

****Slide 2 - Background****

CCB#5 Transition to version 2.0.0 in June 2025.

The additional SCRs:

CCB#3 – Transition to semantic versioning

CCB#4 – Policy on handling deprecated model elements

CCB#6 – Policy on evaluating the need for a major version update

****Slide 3 - CCB#3: Semantic Versioning****

We are using Mnop - 4 element version now. Would go to three element, no letters.

Question: How does this address the problem of needing four digits and letters?

Answer: We would have 99 chances to get it right.

~ No limit on semantic versioning digits, but it is very unlikely since we release every six months.

~ This will resolve namespaces.

M is the major version, n is the minor version, for enhancements. P is for minor fixes, patches. The fourth digit was going to be used for enumerated values.

Question to EN: If we did dash snapshot? Temp?

Answer: A software thing. Temporary. Unsure we will do that. Not for official versions, like dev or beta.

Another Question: Snapshot for non-releases?

Answer: For testing or whatever.

****Slide 4 - CCB#4: Deprecated IM Elements****

There are items currently marked as deprecated in the IM. The potential approaches are to mark as deprecated for some amount of time and then remove them from the next major version or to keep them forever. The old version of the model (validate, harvest, etc) would have to accommodate them anyway.

****Slide 5 - CCB#6: Policy on Major IM Versions****

****Slide 6 - Questions****

The questions on the slide are:

- Should PDS transition to PDS4 V.2.0.0?
- Is the current June 2025 target date reasonable?
- Should PDS adopt semantic versioning with V.2.0.0?
- How should PDS handle deprecated PDS4 IM elements?
- What procedures should be used in deciding when future PDS4 major version updates are scheduled?

Question: Any objection to moving to 2.0?

Another Question: On what time scale?

Answer: That's the next question.

Question: How do you handle LDDs and older versions?

Answer: Older versions stay static.

Another Question: What if a ten year mission needs to do an LDD update?

Answer: EN can support old versions.

Another Question: But could EN update the core, Version 1.* going forward?

Answer: That would have to go in the latest IM. It's a huge impact to all of PDS to update the core.

Another Question: But what about people who still need an old version to be updated?

Answer: LDDs can be updated.

~ The core isn't an LDD. Can't think of when you would need to do that. Would need to look at case by case. Extremely rare. Not advertised. Case by case for tiny, necessary tweaks.

~ It's possible a mission could need a reference type or something. A patch level fix.

~ That's a problem that could happen now, not a version 2 problem.

~ You can't update just an old version without the new one and all the versions in between too.

Question: Does going to version 2 require changes to LDDs?

Answer: These questions are in the wrong order. We need to know lots of answers before someone can answer or decide if they are in favor of going to version 2.

~ We can come back to that question. The second question is about moving in June 2025.

~ No.

~ We need to figure out all the details. Need to move into reality, version things properly and define the rest.

~ That would be one last build for version 1.0. Only one more build. We haven't even informed the community.

~ From system, for deprecating, we can tell everyone what will change - deprecated items go away, version number changes. DPs won't care.

~ Someone is unsure if the impact for tool providers is an issue.

M. Drum has a slide show that addresses a lot of this : ****Backwards Compatibility****. It was a DDWG presentation. Some additional slides were added.

****Slide - Problem Statement****

The general goal of this is to define backwards compatibility, the issues and to push forward with semantic versioning and to define what would happen to deprecated items. Understands that backwards incompatible changes have a heavy impact and that people might need to re-migrate. Deprecated stuff is flagged. We can explain to DPs what is going on. If we adopt semantic versioning that gives a lot of information to DPs and users.

****Slide - The backwards incompatibility process****

This was taken from Python.

- Discuss and decide if it's worth doing
- Add warning, but keep in
- Wait a long time
- Get feedback from the community
- If the feedback doesn't change our mind, they finally can remove and the new one becomes the one.

More specific for our use cases - when change is important for integrity and has been documented, we allow non-backwards compatible changes. Adopting semantic versioning to help us use the system. Accept major version when a certain number of non-backwards compatible changes accepted. That's the threshold.

****Slide - Proposal****

- Add new thing as optional
- Add semantic versioning
- Adopt new major version if there have been two minor versions and remove deprecated thing. New featured can be made required.

We need to clearly communicate the changes to DPs.

~ So, we're not really making non-backwards compatible changes at first.

~ Right. Not until we make the change. Removing an item doesn't mean it's gone forever. We still have old versions forever.

****Slide - Clarifications****

It's important to make archiving easier going forward. We shouldn't keep all deprecated items forever. We will want a cleaner IM for new tools and for future DPs. We need a smaller, more streamlined model. If we never remove anything in fifty years it will be extremely complicated. Every additional feature is another conversation.

~ The new author list is an example. Some things will be easier or harder for the various nodes.

~ The old way was easier for everyone, but the new way is better. Makes it easier for users.

Question: Are we making it easier for us and DPs or for users?

Answer: PPI is trying to do some old PVO restorations, it's hard to figure out the author list now.

~ That doesn't compute. Migrations aren't a concern. They are mostly done.

~ Not for all nodes.

~ There is also old data to restore.

~ We are saving money. When there are a lot of old deprecated items it gets super complicated in the documentation.

~ The faster we can help people understand PDS4, the better.

****Slide - Reducing the Burden on creating IM based software tools****

We want to reduce tool debt and make it easier for them to be created going forward. Smaller range of features have to be built in. Exceptions for every deprecated feature make software harder to use.

Question: We have to re-migrate to make it easier to make software tools for 2.0? The alternative is to support all versions.

Answer: The point is, we are moving to a registry based system, so we can use a process of curation instead of having to re-migrate everything. A major thing that the registry buys us.

Another Question: Will users go to the registry instead of to the regular archive?

Answer: Not going to the physical archive because we're going to the cloud. It's in our best interest to curate our data and keep it in the latest version. Don't expect it to keep evolving in non-backwards compatible ways. It might in LDDs.

~ Regardless of how we do it, we are evolving our archive into the future. New standards are there because they are better.

~ The validate tools are way better too.

The idea of updating in the registry instead of the labels doesn't go with the previous discussion on context products. Whatever is decided, someone strongly advocate for the archive having what it needs.

~ Someone else sees long term curation. We will want to curate that. We don't want to regenerate new versions of everything every time there's a tiny little change. Eventually, we want a tool to do the update.

~ Someone else thought we changed the author list because the tools can't read the old way. Shows curation can't do everything. For tools, we should discourage end user tools that only work with a new version. We want tools that work for everything.

~ We're a data archive - the people who support thirty year old formats are Microsoft, Adobe, etc. People don't even support two versions of Python in their code.

~ Not wholesale - most tools won't care.

~ Just describe a new capability - when it's useful to make a tool. It's less complicated. Might need to re-migrate some stuff. Makes things better to do it.

(End of Slides)

Semantic versioning. Policy for when to transition to new major versions. What that means.

~ Someone likes that we don't have to tie all this to version 2. We can move forward with version 2.

~ Semantic versioning is pretty tied to version 2.0.

~ We should define what has to happen for version 2.

~ Backwards compatibility will take more time.

Software people who care deeply have been talking. Would like to know if they can just work it out.
~ Someone is against removing any feature ever used by users or DPs. User community counts on stability. For SPICE, 40 years. Would like to see all features there. Can deprecate, but still want them there.

~ NAIF and Microsoft. Agrees it's a true service if we can do that for our community.

~ Yes, but higher burden for archiving data, creating tools. Understanding PDS will get harder over time.

The bigger the core gets, the harder it will be to validate. It will be more expensive and slower.

~ That's a great point. It will run slower and slower.

~ And in the cloud. It will cost us money and we'll run out of time to validate before there's more data.

~ Just the core dictionary.

~ All LDDs too.

~ Where ever we're going, it has to be good for everybody.

~ The particle LDD went to version 2.0. Deprecated version 1.0. None of what's in 2.0 was in 1.0.

~ That's the exception, not the rule.

Question: Schematron rules?

Answer: Not a lot of deprecated elements removed. People making non-backwards compatible changes.

~ IMG made one because the value was nonsensical. Think we voted on it.

Question: How does this work for LDDs? Do they go to version 2 at the same time? Do they have to wait for version 3?

Answer: Namespaces are independent of the core.

- ~ From the DSMP, the decision was to use four version numbers. The first is the major version of the core.
- ~ Someone thinks that's out the window.
- ~ PPI did version 2.0 of the particle LDD before there was a DSMP.
- ~ Two segments. LDD can have multiple non-backwards compatible changes.
- ~ The point is the proposal. Need to decide if it applies to LDDs.
- ~ This was written thinking about the core, but probably could and should apply to everything. Difficult policing.
- ~ Good suggestion for mission dictionaries, but needs to be for the core.

We are running out of time. This is an issue we have no hope of resolving today. We should move on to the rest of the issues. Maybe we don't need to decide on backwards compatibility before going to version 2.0.

- ~ We need to pull off the bandaid.
- ~ We should vote on the issues next week and see why they went down if they don't pass.
- ~ Someone would like to talk about semantic versioning now.

Question: Are there any concerns with CCB#3? If everyone is agreeable we can vote at the DDWG and send it to the CCB. Are there any concerns on adopting semantic versioning for the core and the LDDs?

Answer: The concerns are technical. We want it all to work.

- ~ We can test.

Question: Now, if we are putting version in the schema line it looks like v.1.k.0.0, would it be v.02.0.0?

Answer: It could have dots, not super critical. We can decide the semantics.

Another Question: What is the significance of the v. ?

Answer: That's not part of it. It means version.

- ~ Someone asked about the conversion for number/letter versions.
- ~ It's code. EN wrote it.
- ~ EN wrote it, but users did too. They are counting on the version.
- ~ Someone wishes our data was that popular.

Question: Did anyone in the community ever complain about this version having four digits?

Answer: It's been very confusing for LDDs from the beginning and hard to figure out for labels. Would never use the mode with an "l" in it. Looks like a one. Very complicated when letters are skipped.

- ~ It got very confusing when letters were added.
- ~ Someone hasn't heard any objections to semantic versioning.
- ~ NAIF is staying with version 1.5.
- ~ That's the file at the schema location. We can change it when it gets to 99.
- ~ We're getting into the weeds. We can change it. It doesn't really matter. More interested in doing semantic versions properly. Don't care how. We can do a TA.

Someone also wants to talk about the policy for major version decision threshold. It could be an annual decision.

- ~ The DDWG discussed doing it when we hit some threshold of non-backwards compatible changes.
- ~ We've made very few. This new one is why we're discussing this, so we shouldn't worry about a number of them. Would change when we have one. A major change is a major change.
- ~ We need a buffer from when we adopt a change to when we drop the incompatibility.
- ~ Don't have to do it every year. We already have a build schedule every six months. Can say build

whatever, down the road and start the timer.

~ That gives us a target for the non-backwards compatible changes, to try to get them in. So, it sounds like we are going to do it case by case.

~ We need to communicate to the community when we are making changes.

Question: Is there a nice, user-friendly change log?

Answer: Yes.

Another Question: Is there a feedback mechanism?

Answer: There's a fancy "need help?" button.

Another Question: Can users put issues in GitHub?

Answer: Yes.

~ We can post to the public GitHub and announce at community meetings, like PSIDA.

~ Could have a discussion board.

~ For major versions we can put them in the PEN too.

For the policy, we can write up a guide and build on it over time.

~ A ten thousand foot question is if we can anticipate what is going to drive our changes. Maybe missions.

~ Probably they will come from FAIR and Open Science stuff.

~ True. The next AO for missions is awhile away.

~ Author list was for FAIR. Would guess things related to FAIR and interoperability with the PDE more than missions. All related to usability, findability, interoperability.

~ Someone is sorry to hear that. Thought some of this might drop off.

Question: Any final thoughts?

Answer: (Silence)

DDWG Notes 2024-04-04

title: DDWG Notes 2024-04-04

layout: default

date: 2024-04-04

April 4, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, L. Huber, S. Hughes, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson
Known Observers: A. Bailey, K. Crombie (for T. Hare), B. Hirsch, P. Lawton, S. Loftin, E. Schaefer, M. Seritan and M. Tiscareno

DDWG Agenda

(Included in email sent April 2, from J.Mafi, Agenda for April 4, 2024)

We will have a DDWG telecon this Thursday, April 4th at 9:30 PDT (12:30 EDT, and 9:30 MST in Arizona). Please be ready to discuss and vote on the revised versions of the following SCRs: CCB#7, CCB#19, and CCB#26. Please also be ready to discuss CCB#27, particularly with regards to the issue raised by Ethan Schaefer on 3/13/2024 and Ron's response of 3/14/2024. We may also vote on this SCR depending upon the resolution of this and any other questions that arise.

Front-matter/What's new

1) Submitted to the CCB:

- CCB#10 – Schematron/Schema Version Conflict – Passed
- CCB#18 – Never finished JIRA-CCB-325 "lien" for browse and ancillary (Title: Support for video and audio as product observational) – Passed

2) New issues in GitHub:

- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers
- CCB#30 – Add investigation to investigation as an allowable reference type

3) Beta test dates: 4/23/2024 - 5/21/2024

(Discussed)

Ready for Vote

1) CCB#7 – Missing schematron rule to check that Product Bundle.Target Identification.Internal Reference.reference type is bundle to target

2) CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational)

3) CCB#26 – Fix definition of Units of Amount of Substance

a) Report any expert opinions on the mention of "Avogadro's Constant" in the definition should be provided prior to the vote.

4) CCB#27 – DOI requires at least an author or editor

a) Need to resolve the question discussed in Ethan Schaefer's 3/13/2024 and Ron Joyner's 3/14/2024 comments.

(Voted to Pass CCB#7 and CCB#27, Discussed CCB#19 and CCB#26)

Tier 1 issues

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#11 – Add a Funding Information class to the Identification Area
- CCB#24 – Reform unit definitions

Needs DDWG advice on definition formation rule

- CCB#25 – Reform Units of Misc, Units of None, and Units of Rate Need to check all uses of these classes in LDDs Needs additional tiger team members
- CCB#28 – As a user, I want validate to allow delimited tables with whitespace-only numeric fields
- CCB#4 – Backwards Incompatibility policies – Mike Drum

Presentation: Backwards Compatibility

- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum
- CCB#5 – Move to V.2.0.0 for June 2025 Release
- CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
- CCB#21 (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases
- CCB#22 (JIRA-CCB-164) - Display Settings not required for images -- (IMG) Trent will take another look at this One issue was the one-to-many reference to make sure it made sense for multiple image objects
- CCB#23 (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum
- ***(Not Discussed)***

Tier 2 issues

- Product Metadata Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata

(Not Discussed)

Parking lot – need a driver!

- JIRA-CCB-326 - Inconsistent Direction on How to Use Discipline Facets
- RS: 259/281 (see new attachment to JIRA-CCB-281) (on hold)
- JIRA-CCB-364 – Disallow bundles referencing collections by LID
- ***(Not Discussed)***

Historical links:

Export of history: [https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!NgBIPEh1U2Lsi3t0BTAh9Jett29AfkMwC9IYDTxddArgOG59WTrgAy9M1YE8Vrher51Gd9rDodp9nrjzaB8MQi70rMRV0Lsd\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!NgBIPEh1U2Lsi3t0BTAh9Jett29AfkMwC9IYDTxddArgOG59WTrgAy9M1YE8Vrher51Gd9rDodp9nrjzaB8MQi70rMRV0Lsd$)

Backup: [https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!NgBIPEh1U2Lsi3t0BTAh9Jett29AfkMwC9IYDTxddArgOG59WTrgAy9M1YE8Vrher51Gd9rDodp9nrjzaB8MQi70rMhMQ-Ft\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!NgBIPEh1U2Lsi3t0BTAh9Jett29AfkMwC9IYDTxddArgOG59WTrgAy9M1YE8Vrher51Gd9rDodp9nrjzaB8MQi70rMhMQ-Ft$) (limited seats)

Next meeting: 4/18/2024

DDWG

First meeting using Teams instead of WebEx.

##Front Matter

It was good seeing some of you last week in Las Cruces. Appreciates the discussions we were able to cover and the input.

CCB#10 and CCB#18, which passed at the end of February, have now been passed by the CCB. They will be forwarded for implementation.

We have two new SCRs - CCB#29 and CCB#30.

CCB#29 is to fix some schematron rules. Like other recent SCRs, it is basically cleaning up schematron rules, this time for how external LIDs get validated.

~ The rules now don't prevent LIDs that follow the regular NASA PDS4 format. The SCR is going to create rules to prevent that.

CCB#30 is from IMG. Not currently able to link mission to a related mission in reference type. This is an issue for CLPS. Want to add investigation to investigation reference type in context products.

We will be looking at both of these in the coming weeks.

There are a number of SCRs ready to vote on today. We will discuss those now.

Ready for Vote

CCB#7 – Missing schematron rule to check that Product Bundle.Target Identification.Internal Reference.reference type is bundle to target

This was expanded to cover a number of additional products.

Question: Any additional comments before we vote?

Answer: There were questions on this.

~ Someone thinks it has been worked. One of the issues was permissible value definitions. It would be adding a number of them. Posted a list of the value meanings. If there are no other questions we will vote.

**The Vote for CCB#7 as currently written:

ATMOS - Yes

EN- Yes

GEO - Yes

IMG - Yes

IPDA - Not Here

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Yes

SBN - Yes**

CCB#19 - Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational)

Someone doesn't think there was additional work last time.

Question: Did the policy get added at the MC?

Answer: Thought we verified it was already decided and just needed to be documented.

~ That is what someone else understood.

~ We need to update the policy document. Thought there was a presentation that was found.

~ Reporter is not here. Maybe we should wait.

~ Someone said that reporter did some work, but he's not here, so agrees we should wait.

We will get a definite answer on the executive session vote. Will hold off on this one.

Question: Any comments?

Answer: (Silence)

CCB#26 - Fix definition of Units of Amount of Substance

Based on the vote last time the definition of the units of amounts of substance was modified to not include specific reference to Avogadro's constant. The only permissible value currently is MOL. One of the questions was if we wanted a planetary chemist to weight in.

Question: Has anyone spoken to a planetary chemist on this?

Answer: (Silence)

~ We will go ahead and vote to change the definition and value as indicated in the SCR.

**The Vote on CCB#26:

ATMOS - Yes

EN- Yes

GEO - Yes

IMG- Yes

IPDA - Not Here

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Abstain

SBN - Abstain

CCB#27 - DOI requires at least an author or editor

There is a question to resolve. There was a discussion in GitHub between Ron and Ethan.

~ The real issue is the need to define the scope, what we're going to include. In favor of expanding, but only want it to target PDS issued DOIs. Might need to be a lien or maybe it's not an issue.

~ The point was made that we can issue DOIs for things like buildings. Unclear what the author list would be. Not sure we have run into this, but we could run into this.

~ PDS DOIs require author. Other DOIs don't.

Question: Thoughts? As currently written this applies across the IM. Could restrict it to bundles and collections.

Answer: EN's preference is to leave it. More work for them.

~ Schematron rules would be required to restrict it.

- ~ The SCR has language that might need to be dropped.
- ~ That was the Proposed Solution. It was amended.
- ~ Someone thinks the Proposed Solution had a typo and was corrected. Issue with attributes.
- ~ The original Proposed Solution kind of morphed.

A related question is that we won't have author or editor lists. The old attributes won't be supported.

- ~ They will still be required. The new classes are optional.
- ~ That's not how CCB#15 (Author/Editor List) reads.
- ~ We can check the language.
- ~ Please do it. It says the new classes will be substituted for the attributes.
- ~ Someone thinks that was changed. Believes the original Proposed Solution was before we added the classes.
- ~ That's what is being said. Would be very strange to say they are deprecated and required.
- ~ Yes. A mess we made.

This is not ready for a vote.

- ~ We need to clean this up first. The questions to resolve are the scope - what it applies to, and we need to clean up that it only applies to the old author/editor list. Needs to include list author/editor.
- ~ The Proposed Solution has no effect on the implementation. The part that is paid attention to is the Requested Changes.
- ~ That also doesn't include the new classes.
- ~ We might need to see how CCB#15 works in the new IM and then get this in.
- ~ We've got time, but would have to wait too long. Should get the new language clarified. Let's hold off on this until the SCR reflects what we intend to do.
- ~ Next freeze would be in August. We have time. This needs to be updated to include the new classes and that author/editor list is not required.

We will put the vote off for a few weeks.

****Action Item - Mike**** will clarify what is required or not in GitHub.

New SCR

CCB#30 - Add investigation to investigation as an allowable reference type

Someone would like to discuss CCB#30. They have a tight release.

- ~ They want to use the pardine where CLPS is an investigation.
- ~ Thinks it makes sense to connect the program to the mission it's spacecrafts.
- ~ The individual spacecrafts are also missions too. Like Cassini where they had two instrument hosts. Less common.

Seems like instrument package all over again. If we want CLPS to be investigation to investigation, we lost the hierarchy. Better to define program.

- ~ Reporters agree with that, but on a hard deadline to get this released. It's why they took this approach.
- ~ Someone doesn't think there is much we can do on our time-frame.

Question: So this is building a bundle for all CLPS SPICE kernels and all missions are investigations and there is no over arching CLPS thing?

Answer: There is an example of a proposed draft in GitHub. (See the context product in GitHub.) A context product for CLPS.

~ CLPS is a program, like the Mars program. Not sure why CLPS has to be at that level. It doesn't fit the model for exploration programs. We just have missions and no bundle of SPICE for Discovery missions or whatever. We just have missions.

~ The question is if people would search for CLPS.

~ It's an evolving program. Like Mars. Thought at the F2F we considered adding a new instrument type context product. Had abandoned that, but don't recall why. Maybe because it is extra work for EN.

~ Someone is not at EN, but adding specific types for specific hierarchy is risky. Could make sense now, and then not in ten years. Could get messy. That's why we were talking about a generic bucket for instrument type and modeling it as it makes sense.

~ If we're talking about hierarchy, we need a concept of this contains that. They can't be equal.

Promoting the fact that you want to group programs is a new context type. Would need to identify that project contains this investigation.

Question: If this type was set to program instead of other investigation, would that satisfy us?

Answer: This is very similar to the instrument package discussion. We're talking about creating a new type. Would have to dig into context product instrument host to figure out the relationship. Nothing for users to understand the hierarchy.

Another Question: Is it truly important to preserve the hierarchy or is the relationship more important?

Answer: Hierarchy is defined by the relationship.

Another Question: Important for end users?

Answer: Context products are where relationships are found. Don't want people to have to go to context products. Want the software and harvest to make it viewable through the registry. The relationship should go in the context products.

~ From a practical standpoint, it's true it's not very useful for people reading it, but it is better for building software to know all the relationships if building a page. Wouldn't be useful for individual user, but if using the registry to build tools, want it in there.

Question: Do we really need to explicitly state the relationship? We have references, so they know they are related. Could we have investigation to associate?

Answer: Good point. Reference is the physical manifestation of the relationship. The question is what it means. What the relationship is. System people want it.

We keep running into this and there are many similar issues. We don't really have a way to wire them in.

~ Not a good discussion point. Could go to all these languages and try. The question is if we want to clarify everything possible. Have to back off that and do what makes sense when we think of relationships. We've had instrument to instrument problem for years.

Question: So we should keep hard wiring these into the system because the alternative is hard to manage?

Answer: The context products just give hooks.

~ Hearing a sense of urgency, but can't be done without a point build. Unclear why hierarchy plays a role in the discussion.

Someone had blanked on the deadlines, but remembers how much time was spent on instrument package, so worried that this would be a rabbit hole. Unsure we have hierarchy everywhere. Maybe should be a free for all for some relationships.

- ~ We made progress last week on instrument packages. Seems like program should have the same answers.
- ~ Someone agrees, and program seems even simpler. Don't think there will be nested programs.
- ~ There could be.
- ~ Now we have a pretty solid idea of what to propose, based on last weeks conversation. Can also update the context products now as necessary.
- ~ LID would change from investigation to program.
- ~ No. LID is just a string. It keeps breaking because of the concept of hierarchy. Saying if we are going to change the LID, then we can't make a change is terrible.
- ~ Making a perfect, ideal thing with lots of layers isn't going to be helpful.
- ~ That was discussed at the F2F.

Our time is up.

****Action Item - Mike**** will write up his ideas for instrument package and how that can be applied to program. It's a valid point that we need to clarify these issues. Hopefully, the new write up will help.

Next Meeting April 18.

DDWG Agenda

The meeting was called to order by Joe Mafi at 09:33 PDT. He said the agenda has been modified since it was distributed earlier in the week. These notes are an edited version of the original (e-mailed) agenda; discussions, etc. from the meeting itself are in red; action items are in **bold red**.

Attendees: Alyssa Bailey, Mike Drum, Ed Guinness, Trent Hare, Lyle Huber, Steve Hughes, Ron Joyner, Pat Lawton, Tanya Lim, Sheri Loftin, Joe Mafi, Stef McLaughlin, Ethan Schaefer, Boris Semenov, Megan Seritan, Dick Simpson, and Matt Tiscareno,

Front-matter/What's new

1. Submitted to the CCB:

CCB#7 – Missing schematron rule to check that Product_Bundle.Target_Identification.Internal_Reference.reference_type is bundle_to_target. **Nothing heard from CCB; they may be voting this week.**

CCB#26 – Fix definition of Units_of_Amount_of_Substance. **Nothing heard from CCB; they may be voting this week.**

2. New issues in GitHub:

CCB#31 – Ensure that dictionary versions are specified in labels. **Matt is concerned that labels may not be identifying dictionaries and their versions uniquely. Anne had commented that schema location may be only advisory; but Steve has said this should be adequate.**

CCB#32 — A new SCR that follows from discussion at the F2F DDWG session at NMSU. It addresses how we want to include “context” information within labels for data products.

3. *Beta test dates: 4/23/2024 - 5/21/2024 (key dates here).* Includes two SCRs:

CCB#15 (JIRA-CCB-356) – Update Constraints on Author/Editor Lists. **Beta testing should begin next week.**

CCB#16 – Allow micro amps and nano amps as units of current

Ready for Vote

1. **CCB#19** – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational). **There have been continued questions about whether MC has**

actually changed its policy on compression. There have been suggestions that we hold off voting this SCR until Trent could comment. He is here today.

Trent found a presentation to the MC F2F in July 2023; there were no objections voiced during the presentation, so he expects there to be no pushback on this SCR from MC. Joe also looked through F2F notes, but he didn't find any public votes on the policy revision. Dick said a change in policy that is never voted by MC is not a good way to maintain policy. **Trent will get this onto the May MC agenda for a vote.** No. DDWG vote today.

2. **CCB#27** – DOI requires at least an author or editor

- a. SCR has been revised to address DDWG comments and discussion. There have been continued discussions, and there has been a suggestion to postpone the SCR vote until IM v1.22 is released. Ed wondered about the SCR wording that says “somewhere in the label”. Ethan said mixing and matching hasn't worked in his tests the way he expected. Ron said the Schematron rules have already been written, and he would like to have them tested in the new build. Joe suggested adopting Ethan 's proposed wording (submitted in a GitHub comment 19 hours previously) as a lien. There were votes on the wording lien and on the SCR as modified by the lien.

Lien votes:

Yes: Hughes, Schaefer, Hare, Lim, Semenov, Mafi, Tiscareno, Drum, and Huber

No: Simpson (because he has not read the new proposal)

Abstain: none

Not Voting: none

SCR votes:

Yes: Huber, Joyner, Schaefer, Hare, Lim, Semenov, Mafi, Tiscareno, and Drum

No: Simpson (prefers to wait)

Abstain:

Not Voting:

Tier 1 issues

1. **CCB#20** (JIRA-CCB-358) – Instrument Package Context Products
2. **CCB#13** – Ensure file_name and directory_path_name adhere to SR
3. **CCB#29** – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product_External logical_identifiers
4. **CCB#4** – Backwards Incompatibility policies – Mike Drum
 - a. Presentation linked here: [Backwards Compatibility](#)
Joe expects this to take some time.
5. **CCB#3** – Adopt Semantic Versioning with version 2 transition – Mike Drum.
Joe would like to complete this for the next build.
6. **CCB#5** – Move to V.2.0.0 for June 2025 Release.
Joe would like to complete this for the next build.
7. **CCB#11** – Add a Funding_Information class to the Identification_Area
8. **CCB#24** – Reform unit definitions

- a. Needs DDWG advice on definition formation rule.
Joe thinks this should be straightforward. Matt said the ball is in the tiger team's court.
9. **CCB#25** – Reform Units_of_Misc, Units_of_None, and Units_of_Rate
 - a. Need to check all uses of these classes in LDDs
 - b. Needs additional tiger team members
10. **CCB#28** – As a user, I want validate to allow delimited tables with whitespace- only numeric fields
11. **CCB#12** – Document Nuances for Reusability of Generic LDD Classes/Attributes
12. **CCB#21** (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes
 - a. **Still looking for use cases**
13. **CCB#22** (JIRA-CCB-164) – Display_Settings not required for images – (IMG)
 - a. Trent will take another look at this
 - b. One issue was the one-to-many reference to make sure it made sense for multiple image objects
14. **CCB#23** (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum
15. **CCB#30** – Add investigation_to_investigation as an allowable reference_type
16. **Trent wants to get HDF approved as a valid PDS format; he says it is similar to FITS — that HDF data are a simple, raw form. Dick said he didn't know anything about HDF and that getting externally defined formats approved for use within PDS has always been problematical. Joe said he also doesn't know much about HDF. Trent said he does not use HDF; but it is widely accepted in his community. It is popular within the atmospheric community when there are thousands of "bands". Joe said people in particles and fields also use HDF. Matt said we may have made the IM too restrictive; perhaps we should look at it that way. Trent added that there may be a problem with HDF records when they do not have fixed length; as PDS move to the Cloud, some of these formats (e.g., fixed length records) are not efficient for data transfer. Mike said it may not be the model that is limiting; we may simply not be using the model efficiently in the Cloud context. We're going to have to understand how to use the Cloud if we want to stay there.**

Tier 2 issues

1. Product_Metadata_Errata?
 - a. Create a supplemental label to live next to original label, that can add aliases and supersede metadata

Parking lot – need a driver!

1. JIRA-CCB-326 (link) - Inconsistent Direction on How to Use Discipline_Facets
2. RS: 259/281 (see new attachment to JIRA-CCB-281) (on hold)
3. JIRA-CCB-364 (link) – Disallow bundles referencing collections by LID

Historical links:

Export of history here: <https://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup here <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 4/30/2024. **Correction — next meeting will be May 2. Adjourned at 10:18 PDT.**

DDWG Notes 2024-05-02

title: DDWG Notes 2024-05-02

layout: default

date: 2024-05-02

May 2, 2024

Notes by Debra Kazden

Known Attendees: M. Drum, E. Guinness, T. Hare, L. Huber, R. Joyner, D. Kahan, D. Kazden, J. Mafi, S. McLaughlin and R. Simpson
Known Observers: A. Bailey, B. Hirsch, P. Lawton, S. Loftin, E. Schaefer, M. Seritan and M. Tiscareno

DDWG Agenda

(Included in email sent May 1, from J.Mafi, Agenda for May 2, 2024)

We will have a DDWG telecon this Thursday, May 2nd at 9:30 PDT (12:30 EDT, and 9:30 MST in Arizona). Please be ready to discuss and vote on the revised versions of the following SCRs: CCB#19. We will also begin discussion of CCB#5 and CCB#3.

Front-matter/What's new

1) Submitted to the CCB:

~ CCB#27 – DOI requires at least an author or editor

Approved:

~ CCB#7 – Missing schematron rule to check that Product Bundle.Target Identification.Internal Reference.reference type is bundle to target
~ CCB#26 – Fix definition of Units of Amount of Substance

2) New issues in GitHub:

~ CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – Casey Seyb (CIS)

3) Beta test dates: 4/23/2024 - 5/21/2024. Includes two SCRs:

CCB#15 (JIRA-CCB-356) – Update Constraints on Author/Editor Lists

CCB#16 – Allow micro amps and nano amps as units of current

** (Discussed) **

Ready for Vote

- CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational) ** (Voted to Pass) **

Tier 1 issues

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#13 – Ensure file name and directory path name adhere to SR

- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers

- CCB#4 – Backwards Incompatibility policies – Mike Drum See Presentation: Backwards Compatibility

- CCB#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum

- CCB#5 – Move to V.2.0.0 for June 2025 Release

- CCB#11 – Add a Funding Information class to the Identification Area
 - CCB#32 – Add Host type to Observing System Component – Mike Drum
 - CCB#31 – Ensure that dictionary versions are specified in labels – Matt Tiscareno
 - CCB#24 – Reform unit definitions
- Needs DDWG advice on definition formation rule
- CCB#25 – Reform Units of Misc, Units of None, and Units of Rate Need to check all uses of these classes in LDDs Needs additional tiger team members
 - CCB#28 – As a user, I want validate to allow delimited tables with whitespace-only numeric fields
 - CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
 - CCB#21 (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes Still looking for use cases
 - CCB#22 (JIRA-CCB-164) – Display Settings not required for images – (IMG) Trent will take another look at this One issue was the one-to-many reference to make sure it made sense for multiple image objects
 - CCB#23 (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum
 - CCB#30 – Add investigation to investigation as an allowable reference type ******(Some Discussions)******

Tier 2 issues

- Product Metadata Errata?

Create a supplemental label to live next to original label, that can add aliases and supersede metadata ******(Did Not Discuss)******

Parking lot – need a driver!

- JIRA-CCB-326 (link) - Inconsistent Direction on How to Use Discipline Facets
- RS: 259/281 (see new attachment to JIRA-CCB-281) (on hold)
- JIRA-CCB-364 (link) – Disallow bundles referencing collections by LID
- ******(Did not Discuss)******

Historical links:

Export of history: [https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!J24!OnOVEzmDEXw3IMxpuBeRH4_CPWNYbfg6qqYgUD84zAEsQvpohGnfTEul1U4U7UwbUej8cZ8NOrStNQdwfWPgaAXwUakF\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!J24!OnOVEzmDEXw3IMxpuBeRH4_CPWNYbfg6qqYgUD84zAEsQvpohGnfTEul1U4U7UwbUej8cZ8NOrStNQdwfWPgaAXwUakF$)

Backup: [https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!J24!OnOVEzmDEXw3IMxpuBeRH4_CPWNYbfg6qqYgUD84zAEsQvpohGnfTEul1U4U7UwbUej8cZ8NOrStNQdwfWPgaMGUJ5BD\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!J24!OnOVEzmDEXw3IMxpuBeRH4_CPWNYbfg6qqYgUD84zAEsQvpohGnfTEul1U4U7UwbUej8cZ8NOrStNQdwfWPgaMGUJ5BD$) (limited seats)

Next meeting: 5/16/2024

DDWG

Front Matter

This week we have one SCR to vote on and a few to discuss. CCBs #7 and #26 were approved by the CCB. CCB#27 came back to us for clarification. The issue is the scope. It requires schematron to enforce, but the SR only requires it for bundles and collections. Original request was to add DOI

anywhere with a citation information object, but typically only for bundle, collection and document. We need to do a bit more work. Another SCR to update the SR to require for document too. Will discuss.

Question: Are there any comments on CCB#27?

Answer: Someone had a long discussion on this. The DOI policy only covers four areas - bundle, collection, PDS3 data set and document. Think it's perfect as is. Think this puts the cart before the horse.

~ The SR at least needs to be updated to include document. The question is if we want an SCR to update it as CCB-206 originally requested practices shows it's probably not necessary. Can't think of real use cases. The question is if there are any.

Question: The agenda shows CCB#27 as approved. Can this be clarified?

Answer: CCB sent it back. CCBs #7 and #26 are approved.

~ Beta test was supposed to start April 23. No notice its available, so inclined to wait now for new IM and then proceed.

Another Question: Anyone know the status of the beta testing start?

Answer: Jordan said it would start this week or next.

Question for Ron: When you said everything is as it should be, what are you saying?

Answer: CCB was pointing out specifically that the SR doesn't say blah, blah, but we have lots of schematron rules that are not in the SR. The converse isn't applicable. Would have to make the SR thousands of pages.

Another Question: So, the SCR is fine - disagree with the CCB?

Answer: Yes. Was on telecon. Had a lot of follow up emails. Didn't do well.

~ Someone asked for examples of things enforced in schematron and not in the SR.

~ There are thousands at this point. Can find a bunch. Schematron evolves over time with things outside what is described in the SR.

~ Should be described in the SR, but that's off topic.

Someone is concerned about enforcing things in a CCB ticket but them not being in the IM or SR.

~ Schematron is part of the IM.

~ Someone asked if that is documented.

Question: Should it just say it's required?

Answer: That's someone's understanding.

~ There is a requirement that DOI in bundle or collection have author or editor list. Will be expanded due to CCB#16, but enforcing this is why CCB#27 was written. Nothing for documents is why the CCB is complaining. They want another SCR for when documents are present.

~ That's reasonable in attribute definition.

~ There are lots of schematron rules that are not expressed in the SR.

~ Two of these are and one is not. It's an easy fix. Not worth a big fight with the CCB.

~ Someone agrees.

~ we should just fix this SCR and not write a new one.

~ We can add the new Requested Changes.

Question: Any last comments?

Answer: (Silence)

New SCR - CCB#33 - Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

The request is to change the cardinality of file area inventory for collection inventories. Would like to have multiple inventory files instead of one large one.

~ The counter argument is that it's a bad idea to split inventory files when splitting a collection makes more sense.

~ Someone agrees, but the people who requested this aren't here to discuss it.

Someone has a question for EN - wants to know how system would handle multiple inventory files for a single collection. Concerned about implementation.

~ It will have a huge impact on the tools, registry and whatever else.

~ This was discussed in GitHub. It's solving a problem that isn't there.

~ Before we try to solve this, we need a TA.

Someone wonders what NSSDCA has to say about this.

~ NSSDCA appears to have dropped off.

~ Someone reported that NSSDCA person put a comment in the chat (See chat at end of the notes).

They agree with person who said this is solving a problem that isn't there and that splitting the collections makes more sense. Same someone also said that they understand what is being requested, but they also agree with the others. Hard to validate when you have so many accumulating bundles, but validate can handle it.

~ PPI perspective is that we have split along mission phase lines but that is artificial for fields and particles. Not so useful for users. PPI probably wouldn't use this, but it should get a TA.

This is backwards incompatible with a huge impact to tools. Considers this a major impact. Should hold back until significant assessment.

~ Someone concurs with the idea that we need a TA to see how validate, registry and harvest will work with this. Users would be very dependent on the registry to find things if this goes through. On the fence. Understand that it would be easier for giant collections, but need more TA before we can vote on this.

~ Another person is on the fence too. Don't want to add layers of complications.

~ It's possible we already have this ability built in. We will get a TA before we continue discussing this.

Ready for Vote

CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational)

We are voting on this today.

~ Someone thought this was on hold until we found the MC vote.

~ Another person got the information from Laura. In was in executive session notes. Not publicly available. They voted in March 2023.

~ That's why we couldn't find it.

~ It was approved unanimously in 2023.

Question: Is it okay to vote? Is everyone comfortable?

Answer: (Silence)

**The Vote for CCB#19

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Not Here

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Abstain

SBN - Yes**

This passes. It will be sent to the CCB.

Tier 1 Issues

CCB#3 - Adopt Semantic Versioning with version 2 transition ## CCB#4 - Backwards
Incompatibility policies ## CCB#5 - Move to V.2.0.0 for June 2025 Release

We are now going to spend time discussing issues for the transition to version 2, like semantic versioning. CCB#5 is to move to version 2.0.0. for the June 2025 release. That means any non-backwards compatible changes from now on would need an IM update. Going to version 2 is the only change here.

~ There are three SCRs, #3, #4, #5. We should go in that order for the discussion. This assumes we approve semantic versioning. Don't see any reason to move to version 2 without CCB#4. Would say we should do them in order. It could be for whatever release we are actually on.

~ This would be next time there's a non-backwards compatible change that we would go to version 2. Most non-backwards compatible changes have been deprecated and left in in a backwards compatible way, except when new required elements were added. It's correct that there is no reason to go to version 2 if there are no non-backwards compatible changes for June of 2025.

~ We would transition after a certain amount of time after a non-backwards compatible change, but if we never do it, we will never do it.

~ At the F2F, Jordan said going to version 2 doesn't have to be contingent on CCB#4. An example is CCB#27. The proposal would be to have a major version change, despite CCB#4.

Question: Good point. If we make the current optional attributes required is there a way to say to deprecate or leave something out?

Answer: Could be a validate warning.

~ The right thing to do.

~ Could be folded into policies. We want to do a transition to version 2 for a reason, like moving to semantic versioning.

~ We will look at semantic versioning first. Probably workable, but we don't have to tie the transition to version 2 to other SCRs. We should get semantic versioning solved. It was discussed at the F2F. CCB#3 is to adopt semantic versioning. Three digits with very specific definitions and uses. Four digit version was somewhat haphazard. One issue is that there are places where the

documentation needs to be updated. Listed in GitHub. We should do that as part of the SCR.

Question to Mike: Are you willing to do that?

Answer: Yes, but still has questions about leading zeros.

Action Item - Mike will update the documentation as part of CCB#3.

~ Can use for filenames, but version numbers won't have leading zeros.

Another Question: Will it affect schema reference?

Answer: Good question. It follows file naming conventions.

~ Someone is confused.

~ The issue is if the schema reference every label has to say which schema - if that has to follow rules for leading zeros.

Another Question: This won't affect any version 1.* labels, right? Labels will have to include the file name for the schema.

Answer: Not directly tied to semantic versioning. An implementation for version 2 with semantic versioning.

~ Someone would like to hear from EN on this.

~ Someone else too.

~ And schema naming is beyond our scope. The question is if we need to talk about leading zeros in schema references etc. Not sure we need to. Might need to look at SR to see what's required. There might be rules for usage. This could be a non-issue.

CCB#3 links to a presentation from November 2023 by EN. We should ask EN to clarify and then move forward. **(Action Item?)**

We need - based on the comments in GitHub, a document to specify ways and places SR would need to be updated for semantic versioning.

~ Someone thinks it's all in GitHub already. Thinks it's section 6D.3.2 of the SR. Need tightening of language to be totally clear. Also should discuss for LDDs. Need to clarify.

~ Gotcha.

~ Think we do want semantic versioning for LDDs. Stewards can weigh in.

Action Item - Mike will find some text.

Question: It would be good to have all dictionaries use the same version as the IM. Any objections?

Answer: No objections, but want people to understand the impacts.

~ Someone thinks people will understand.

~ We need some guidelines for LDDs and the Common dictionary if we are moving need to decide what would be after 1.L if it's not version 2. We could end up with a mix of old version system and semantic versioning.

~ We could say the DDWG expects stewards to switch to semantic versioning in the near future.

~ We will have to think about how to handle this for LDDs.

Another Question: Would the change to semantic versioning be a big version change?

Answer: Probably a fair approach. Not sure if we want that in the SCR. Might be best to let the stewards handle it.

~ Someone just added a snippet in GitHub regarding versioning. It's good. No problem with just continuing.

Question: Any other comments?

Answer: (Silence)

~ We have homework to do. Let's get documents generated so we can vote soon.

We have five minutes left. Not enough time for backwards incompatibility policies.

Question: Any last comments?

Answer: (Silence)

We will meet again in two weeks.

Meeting Chat

Guest no longer has access to the chat.Matt (Guest) no longer has access to the chat. Thanks Joe for finding that exec. session v... by Hare, Trent MHare, Trent M10:03 AMEdited

Thanks Joe for finding that exec. session vote for me!

From the SR: Versioning of discipline and... by Schaefer, EthanSchaefer, Ethan10:22 AM

From the SR:

Versioning of discipline and mission level dictionaries is more flexible. Developers of these dictionaries may, if they wish, use the same criteria as described above for the common dictionary. Alternatively, some of the components of the version may be used to synchronize the dictionary with a higher level dictionary on which it has dependencies. Discipline and mission level dictionary versions may have anywhere from one (M) to four (M.n.o.p) components.

Lyle Huber no longer has access to the chat.Lyle Huber no longer has access to the chat.Schaefer, Ethan no longer has access to the chat.Schaefer, Ethan no longer has access to the chat.Hare, Trent M no longer has access to the chat.Hare, Trent M no longer has access to the chat.Guest no longer has access to the chat.Pat (Guest) no longer has access to the chat.Guest no longer has access to the chat.Ben Hirsch (SBN-UMD) (Guest) no longer has access to the chat.Guest no longer has access to the chat.Danny Kahan (Guest) no longer has access to the chat.Joe Mafi (Guest) no longer has access to the chat.Mike Drum (PDS SBN) (Guest) no longer has access to the chat.Megan Seritan no longer has access to the chat.Megan Seritan no longer has access to the chat.Guest no longer has access to the chat.Debra Kazden (Guest) no longer has access to the chat.Richard Simpson no longer has access to the chat.Richard Simpson no longer has access to the chat.has context menu