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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://github.com/NASA-PDS/PDS4-CCB/issues>

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

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

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-nLB5UKmGB0abiuRu4q wz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHICssalhemTqQH1xaKRW2\\$](https://urldefense.us/v3/https://peps.python.org/pep-0387/*backwards-compatibility-rules_/lw!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4q wz9GVnFq47ncIHRKC-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. Assessing 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-8pUth4aE98ITGkGZBp1Qo4VoaAaSHlCsalhemTqQHyfdpQNG\\$](https://urldefense.us/v3/https://github.com/NASA-PDS/pds4-information-model/discussions/;!!PvBDto6Hs4WbVuu7!PbF7sHzZR7-nLB5UKmGB0abiuRu4qwz9GVnFq47ncIHRKC-8pUth4aE98ITGkGZBp1Qo4VoaAaSHlCsalhemTqQHyfdpQNG$)

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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title: 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 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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title: DDWG Notes 2024-02-01

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date: 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;!!PvBDto6Hs4WbVuu7!PP0HOtiDEewn4f_c1xIfW5AA2_NihjqhTuobUoHO8B4XKDntWDXkqLqI7AtQK73v7QqQcE4sSGfoE9O_H8cvIRaYkFKv_bF$)

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;!!PvBDto6Hs4WbVuu7!PP0HOtiDEewn4f_c1xIfW5AA2_NihjqhTuobUoHO8B4XKDntWDXkqLqI7AtQK73v7QqQcE4sSGfoE9O_H8cvIRaYi0JCt02$)

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

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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!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IAIYE9le\\$](https://urldefense.us/v3/https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IAIYE9le$) (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

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#### # Notes from Dick Simpson

From: [mdrum@psi.edu](mailto: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](mailto:boris.semenov@jpl.nasa.gov), Edward A. Guinness, [e.schaefer@wustl.edu](mailto: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](mailto: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\\$](#)

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

Adjourned 10:43 PST

Next meeting: 2/15/24

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#### #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 rabbithole 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://github.com/NASA-PDS/PDS4-CCB/blob/main/docs/author-editor-list-update-rationale.md ;!!PvBDto6Hs4WbVuu7!PDXlwQclSQ58hdJtuKrvHggxODGD8hd1HHM8rE4D68BV1xyMCPVuLedFy7pl7SHlxJfn6acQ8VKkdtLa9UjX6eR9IPKORq98$)

[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

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title: DDWG Notes 2024-02-15

layout: default

date: 2024-02-15

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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!ICgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvlxoK5UN6JC11yiISooek1oAq6hO1DbKiI\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!ICgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvlxoK5UN6JC11yiISooek1oAq6hO1DbKiI$)

Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!ICgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvlxoK5UN6JC11yiISooek1oAq6hCSa\\_vAiI\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!ICgRiVpFAlkxwB2XW-XFNv02Gk5EO22tH8MGgnNy8fjSmsloPh3-22ibvJZjpJvlxoK5UN6JC11yiISooek1oAq6hCSa_vAiI$) (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 burned. 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.

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

## DDWG Notes 2024-02-29

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title: DDWG Notes 2024-02-29

layout: default

date: 2024-02-29

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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\\_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaRol27P\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaRol27P$)
- Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl\\_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaYaf-Ca\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONaYaf-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\\_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONY-g4\\_XQ\\$](https://urldefense.us/v3/https://drive.google.com/drive/folders/1Csa27xfwOmxYL4WAczmMiRNbpQcvOyg4_!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONY-g4_XQ$)

from Matt Tiscareno to everyone: 9:42 AM

Therein, #8a Drum presentation:

[https://urldefense.us/v3/https://docs.google.com/presentation/d/16XuB2gTxo3JRYsXIeNbugrG3CNCDOXT9ydvqu3ZvzVg/edit\\*slide=id.p\\_!w!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl\\_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONeHuZnSB\\$](https://urldefense.us/v3/https://docs.google.com/presentation/d/16XuB2gTxo3JRYsXIeNbugrG3CNCDOXT9ydvqu3ZvzVg/edit*slide=id.p_!w!!PvBDto6Hs4WbVuu7!PsjZsH6lk3bC8FZJa4t-pl_jb7fCvHoPb1louuloBOe5XPPjEvvuNsc6Pc5iu0F0z7dGXC5-1TdFqEliwWdjwXONeHuZnSB$)

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

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title: DDWG Notes 2024-03-14

layout: default

date: 2024-03-14

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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) \*\*

Historical links:

- Export of history: [https://urldefense.us/v3/\\_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data\\_!!PvBDto6Hs4WbVuu7!MvjAXBV0GTxoVmlub\\_NaKOvqxFjTjasYyaR\\_d39-fvtFIQ17okMTApuUhYARpnzTwJpdSreVluRjA\\_pelxRG4Scvr9YTTLc3\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!MvjAXBV0GTxoVmlub_NaKOvqxFjTjasYyaR_d39-fvtFIQ17okMTApuUhYARpnzTwJpdSreVluRjA_pelxRG4Scvr9YTTLc3$)
- Backup [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!MvjAXBV0GTxoVmlub\\_NaKOvqxFjTjasYyaR\\_d39-fvtFIQ17okMTApuUhYARpnzTwJpdSreVluRjA\\_pelxRG4Scvr0oU-LU3\\$](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)\*\***

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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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title: 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 context 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

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title: DDWG Notes 2024-04-04

layout: default

date: 2024-04-04

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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.



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## 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**.

Attendess: 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

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title: DDWG Notes 2024-05-02

layout: default

date: 2024-05-02

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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

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## DDWG Agenda

### 1. Submitted to the CCB:

[CCB#27](#) – DOI requires at least an author or editor – Sent back to DDWG

### 2. New issues in GitHub:

[CCB#34](#) – Add <terse\_description> to the Investigation class – Steve Hughes

EN has been trying to beef up the Investigation class so that it can better support the Search API in a new web design which depends more on Context products. <terse\_description> would provide an up-to-255 character short version of <description>, which is currently of unlimited length. The alternative is to abstract <description> on the fly (presumably automatically).

Mike wondered whether <terse\_description> belongs in the Context product itself or somewhere else; he is concerned that there may be half a dozen other “terse versions” that are primarily for web design and don’t have much utility for science.

Steve said CCB#34 is coming from the ‘system’ side. Ed wondered whether the IM is now being driven by software. Steve said the IM is very flexible and this type of evolution has always been anticipated.

Trent thought the stated problem may have a technical solution, which would not require a new attribute. He suggested constructing <description> values so that the first 255 characters contain the terse description. Users who want more, could click on a “more information” button.

[CCB#35](#) – Add Alias\_Index and Acronym\_Index to the Investigation class – Steve Hughes

Steve said there are objects in PDS that have aliases and objects that have acronyms; some have both. For example, Mars Science Laboratory has acronym MSL and alias Curiosity; some asteroids and comets have multiple aliases. He said the people designing the new PDS web site need to know how to prioritize both aliases and acronyms so they can choose how to present information to users. CCB#35 would add these two attributes to the Investigation class — allowing aliases and acronyms to be prioritized, presumably with the value having highest priority being given top billing on the web site.

Matt said RMS has always believed there needs to be a layer of curation between the archive and the rest of the world; this layer would make translations and set priorities. Context products are for archiving, not for information management within the web site. He added that the editorial working group (EWG) should be the experts on content, and they should be doing this curation — taking the context products *and* outside information, making the translations, and setting priorities. Steve said the EWG is expecting to update the Context products. Matt said he thinks that’s a bad idea; the EWG should be the intermediaries making translations, not touching Context products. At Steve’s request, **Matt agreed to put a summary of his comments on GitHub.**

Ed is puzzled how this is going to work. He has always assumed that DNs controlled what was on their web sites; if web sites are now being built around Context products and the Context products are being changed by the EWG to meet perceived web design needs, then the results may not be desirable.

CCB#36 – Add Mission Phase to the Investigation class – Steve Hughes

No discussion. Postponed to next meeting.

CCB#39 - LDDTool does not include all rules from IngestLDD

This problem was raised by Jesse Stone, who realized that some rules being delivered with LDDs are not making their way into schemas. After investigation, it was discovered that rules with the same “context” were sometimes in conflict and the system chooses only one without notifying the LDD steward. Matt suggested that Jesse’s problem statement and the subsequent investigation were not mature enough for discussion. He wondered why Jesse could not revise his rule in such a way that it would be implemented.

Ron recommended rewriting LDD submission rules to prohibit conflicting rules with the same “context”. Matt added that “silent failures” should be eliminated so that LDD stewards are alerted when their rules are not implemented. This seemed to be option #1 in Steve’s SCR. Steve commented that there was apparent agreement on this as a solution and suggested **a vote at the next DDWG**.

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

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

## Ready for Vote

CCB#13 – Ensure file\_name and directory\_path\_name adhere to SR 3.

## 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#3 – Adopt Semantic Versioning with version 2 transition – Mike Drum
  - a. Proposed [SR Amendment](#) posted.
5. CCB#4 – Backwards Incompatibility policies – Mike Drum
  - a. Presentation linked here: [Backwards Compatibility](#)
6. CCB#5 – Move to V.2.0.0 for June 2025 Release
7. CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year
8. CCB#11 – Add a Funding\_Information class to the Identification\_Area
9. CCB#32 – Add Host type to Observing\_System\_Component – Mike Drum

10. [CCB#31](#) – Ensure that dictionary versions are specified in labels – Matt Tiscareno 11.
11. [CCB#33](#) – Change cardinality of File\_Area\_Inventory to allow multiple inventory files for a single collection – Casey Seyb (CIS)
12. [CCB#24](#) – Reform unit definitions
  - a. Needs DDWG advice on definition formation rule
13. [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
14. [CCB#28](#) – As a user, I want validate to allow delimited tables with whitespace-only numeric fields
15. [CCB#12](#) – Document Nuances for Reusability of Generic LDD Classes/Attributes
16. [CCB#21](#) (JIRA-CCB-367) – Provenance LDD Using PROV-DM – Steve Hughes
  - a. Still looking for use cases
17. [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
18. [CCB#23](#) (JIRA-CCB-211) – XML/schema based files as archival data – Jesse Stone, Mike Drum
19. [CCB#30](#) – Add investigation\_to\_investigation as an allowable reference\_type

## **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: 6/13/2024

**Adjourned 1033 PDT.**

## DDWG Notes 2024-06-13

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title: DDWG Notes 2024-06-13

layout: default

date: 2024-06-13

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June 13, 2024

Notes by Debra Kazden

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

### ## DDWG Agenda

(Included in email sent June 11, from J.Mafi, Agenda for June 13, 2024)

We will have a DDWG telecon this Thursday, June 13th at 9:30 PDT (12:30 EDT, and 9:30 MST in Arizona). Please review and be ready to discuss and vote on CCB#27, and CCB#13. More information on the status of each of these is discussed in the "Ready for Vote" section below. We will also discuss the proposed SR Amendment for CCB#3. Please be ready to discuss the document and vote on the portions where different options are presented.

#### Front-matter/What's new

##### 1) Submitted to the CCB:

- CCB#19 – Never finished JIRA-CCB-325 documentation updates (Title: Support for video and audio as product observational) – Passed by the CCB; queued for implementation

##### 2) New issues in GitHub:

- CCB#38 – Add permissible value mrad/pixel to Units of Pixel Resolution Angular – M. Tiscareno
- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD – S. Hughes

##### 3) Build 15.0 freeze date: 8/13/2024. 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

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

- The proposed SR Amendment has been updated to address the CCB's comments (see R. Joyner's comment of May 9 the CCB's comments).

##### 2) CCB#13 – Ensure file name and directory path name adhere to SR \*\*(Did Not Vote)\*\*

#### Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition – M. Drum Updated SR Amendment posted by R. Simpson (May 27).

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers

- CCB#4 – Backwards Incompatibility policies – M. Drum Presentation linked here: Backwards Compatibility

- CCB#5 – Move to V.2.0.0 for June 2025 Release
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- 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#34 – Add terse description to the Investigation class – S. Hughes
- CCB#35 – Add Alias Index and Acronym Index to the Investigation class – S. Hughes
- CCB#36 – Add Mission Phase to the Investigation class – S. Hughes
- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
- 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 – S. 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 – J. Stone, M. Drum
- CCB#30 – Add investigation to investigation as an allowable reference type **\*\*(Discussed CCB#3)\*\***

#### 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!Pihnj71bEP2NYIIIng9EJtYM5nZPAeYUW9QpLS5N9lv5Zbox7mxbnbWYGuWk7Kwn9p2eHsqq6s2gPr\\_Yhu23LkhXvhowE4ld\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!Pihnj71bEP2NYIIIng9EJtYM5nZPAeYUW9QpLS5N9lv5Zbox7mxbnbWYGuWk7Kwn9p2eHsqq6s2gPr_Yhu23LkhXvhowE4ld$)

Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!Pihnj71bEP2NYIIIng9EJtYM5nZPAeYUW9QpLS5N9lv5Zbox7mxbnbWYGuWk7Kwn9p2eHsqq6s2gPr\\_Yhu23LkhXvmkVNudJ\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!Pihnj71bEP2NYIIIng9EJtYM5nZPAeYUW9QpLS5N9lv5Zbox7mxbnbWYGuWk7Kwn9p2eHsqq6s2gPr_Yhu23LkhXvmkVNudJ$) (limited seats)

Next meeting: 6/27/2024

# DDWG

## ## Front Matter

CCB#19 (Never finished JIRA-CCB-325 documentation updates [Title: Support for video and audio as product observational]) went to the CCB.

There are new issues in GitHub, including CCB#38 (Add permissible value mrad/pixel to Units of Pixel Resolution Angular), which seems fairly straight forward.

~ RMS has a Hubble project and that is the natural unit. Hopes this can be available to use in the next build.

Another new issue is CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD.

~ There were assumptions early on that it didn't happen, but it is allowed now. Suggestion was to change the SR to not allow them. Will need a vote.

There are a number of SCRs to look at today.

Matt is ready to start moving on CCBs #24 and #25. Needs a reminder of who is on the Tiger Team.

~ Matt, Joe and Dick.

Steve offered thanks to Joe for allowing him to present CCBs #34-#37 to the team at the last meeting. There was quite a discussion. Examples in GitHub have been edited. Need to start Tiger Team discussions.

~ Not everyone was aware there was a Tiger Team. The example for CCB#36 (Add Mission Phase to the Investigation class) is actually for CCB#35 (Add Alias Index and Acronym Index to the Investigation class). It was moved and there is nothing for CCB#36 now.

~ An example was added and edited this morning. Unclear if we need a Tiger Team. Agenda said we do.

~ The agenda says that for CCB#25.

~ Someone was confused.

## # Ready for a Vote

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

There was feedback from the CCB a few weeks ago. Some updates were made to the Requested Changes for the SR. They mention the original SCR would make author/editor information required for citation information and to document where ever it appeared, but there would be a mismatch between the SR and the schematron rules because DOIs really only for bundles, collections or documents. The SR updated the requirements for those three.

Question: Are there any concerns with that approach?

Answer: Someone thought we already voted on this.

~ We did, but the CCB kicked it back. We did a poll after that on if there are any use cases of DOIs for anything other than bundle, collection or document.

~ Either way, the new SR is out. The wording doesn't match. We need to update that. Not ready to vote. Want the DDWG to pay attention and not get bogged down in schematron and schematron rules.

~ The SR rewrite in the Requested Changes is compliant for IM version 1.22.

~ Someone didn't see that, but isn't digesting GitHub as well as Jira.



Question: Is anything new posted?

Answer: Someone thought they posted it in a zip file.

~ The zip file has the old wording.

~ Someone referenced it. Thought it was included in the Requested Changes, but doesn't see it.

~ Let's take this discussion off line, get it right and then vote.

~ The change request says to revise the Requested Changes - referring to list author/editor classes.

~ Yes, but those were added yesterday.

Question: Isn't that what we want?

Answer: Yes. Edited the SCR yesterday. Thought people could see the history.

Another Question: Did you remove what was previously there?

Answer: Yes.

~ It had everything in there, including a zip file. What we want is done.

~ We need another informal vote.

~ Wires got crossed.

Can see in edit history. Click the SCR statement, click edited by Ron last week, see the list of attachments.

~ Yes, but the point is that someone overwrote perfectly valid attachments.

~ Editing in GitHub has come up before. This has list author/editor.

~ (Author/editor list) is still valid. Deprecated, but still valid.

Someone thinks the issue is that the current release of the SR doesn't mention that.

~ Right. It shouldn't have old stuff listed as current standard. See SR 9.C.2.

~ Still mentions author/editor list.

~ Someone else says it should.

~ The point is it does, but it doesn't mention list author/editor.

~ Only includes the available deprecated ones, that people shouldn't use.

~ If they are still available we shouldn't remove their mention. Should add that they are deprecated.

~ IM 1.22 does not have list author/editor, should not have deprecated items by themselves.

~ This gets to CCB#4 (Backwards Incompatibility policies). We shouldn't mix the two. Mentioning what's deprecated is a good suggestion. We should edit to say that author/editor list is deprecated.

We should do CCB#4 first.

~ Someone would rather not. CCB#4 will take time and we don't want to hold this up and have to wait for a new IM before we finish CCB#27.

Regarding not mentioning deprecated versions without mentioning the new things...

~ We shouldn't mention deprecated things.

~ People disagree.

~ The SR should mention things that are possible. We need to also include the new, preferred things.

We can edit this, but not in real time, and bring it back for a vote next time. Thanks to everyone for their input. This underscores the need to work on non-backwards compatible policies.

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

There have been some comments in the last few days. There is a comment that it is inappropriate to

have a slash in the directory name. Forward slash is the separator in directory path. The keyword directory path name will need to include a slash.

Question: Any comments?

Answer: Right, but we need to look at all the examples.

~ Yes, but GitHub has additional, domino effect issues and counter examples too. Prefer it not to be ambiguous.

~ The comments talk about directory names. SR 6.C.2 already covers that.

~ True.

~ If we get rid of the examples we don't have to edit them.

~ We need to clarify in GitHub and then we can bring this back for a vote.

~ We need to make sure schematron rules cover it.

~ The concept of directories doesn't exist in the cloud. This is current technology. Might not be valid in fifty years.

~ People agree.

Question: So, are we adding additional restrictions?

Answer: Not really. Clearing up ambiguities. Original problem has been corrected, but that got lost in all this discussion.

~ Someone is unsure why we would want to change ASCII directory path name.

~ Another person agrees. Not everything is addressed. Unsure about having to adjust the definition.

~ Someone else thinks ASCII directory path name isn't exactly what we want.

~ Maybe the restrictions should only be in the attribute, not at the data type level.

~ Need to look again.

Another Question: We are using both. Assumes schematron rules represent unique valid character sets and how the file needs to begin and end. Are some issues not addressed by the types?

Another Question: Should they be?

Answer: Someone doesn't see a reason they shouldn't.

We need to look at this and the data type definition to see what needs to be done by schematron. Think this and directory path name only apply to this. To the point about the future, the keyword exists, so we need to provide guidelines, but it is an interesting question on what happens when we move into the cloud. We will address the questions and bring this up again.

# Tier 1 Issues

## CCB#3 - Adopt Semantic Versioning with version 2 transition

There was a document with different optional approaches we can take. Wanted to edit it in real time with the best of the options.

Question: Are there any general concerns with the document?

Another Question: Just about the structure of version numbers?

Answer: Yes. A modification to the current version of the SR.

Another Question: Actual version number, not as part of the file name, right?

Answer: Right. Jordan says he is planning to use versions exactly as it appears here.

~ That is fine with one person.

The first issue - two approaches discussed. One to zero, pad version numbers to always be two digits or not zero pad.

Question: Discussion?

Answer: We have to choose. EN prefers file names to be zero padded, so they could have two systems in different locations. It's do-able, but the question is if we want two systems.

~ Someone is strongly against zero padding. Constrains us for future ways we might want to change versioning of a product.

~ Good point.

Another Question: Is anyone in favor of zero padding?

Answer: It's cleaner if we are changing versions quickly. Would like to defer the decision on that. Can edit later. Two digits for M for now, then wait and see.

~ If we decide on two now, then we need three, we destroy the ability to sort. Padding is not a good idea.

~ 1.1 is better looking than 1.01

~ Programmers can deal with problems of sorting.

\*\*A Vote on Zero Padding. Yes to zero padding or no - zero padding.

ATMOS - 0\*\* (Did not vote. Possible audio issue) \*\*EN - Abstain GEO - No IMG - No IPDA - Abstain NAIF - Abstain PPI - No RMS - No RS - No SBN - No\*\*

Six no votes, three abstain. So, no zero padding.

~ Joe edited GitHub in real time.

The next question is to decide which paragraph(s) should be omitted. Wasn't clear what they were referring to. If we go to semantic versioning would make them synchronized. Unclear if we should keep or remove.

~ Someone is confused.

Question: Is this in the current SR?

Answer: In the current SR, but new version retained them.

Question: Does the first one mean to keep using four digit numbers and LDD versions? What are we talking about?

Answer: No idea why we are discussing this.

~ Someone thinks the correlation doesn't need to be so rigorous. Nothing about versioning with zero.

~ Maybe we should say something more sensible about version.

~ Go ahead.

~ This needs clean up no matter what.

Someone understood it, so is in favor of leaving it, but can clarify. Removing it might create a different kind of ambiguity. Should explicitly say what it applies to.

~ So the paragraph before that, believe that addresses that. It was edited. Unsure if it is redundant.

~ Good point. Maybe concepts need to be better expanded on.

~ Someone else would strike them and replace them with what's in the chat.

The LDD Tiger Team was discussing this. Wanted to consult about this.

~ When we go to 2.0, this is very sensible. Multiple versioning systems doesn't make sense.

Question: Does anyone disagree with imposing semantic versioning on LDDs?

Answer: Someone is okay with that.

~ Another person says they have heard from others that they are okay with it.

~ IMG is okay with it.

~ So, LDDs would fit in this system. Maybe not an issue going forward.

Maybe the statement in chat - and now in GitHub - would work.

~ Just to be clear, semantic versioning isn't just a three part system. Have to clarify how it will be used.

~ People agree.

~ Maybe we should rewrite the new wording to say that.

~ It's more clear.

Question to IPDA: You have a lot of LDDs, so would like confirmation from you that this is okay.

Answer from IPDA: Don't see any objection. Should be fine.

Regarding the new wording, an issue. This implies data products are part of the IM, but they are not. They are the content of the archive.

~ So this should only apply to dictionaries.

~ And products, but they aren't metadata.

~ The comment is being updated in real time.

~ Someone wants to know if this includes documents.

~ Yes, products and documents.

~ System documents.

We will massage this off line. Need to get the final wording updated.

**\*\*Action Item - Dick\*\*** will update the wording.

## DDWG Notes 2024-06-27

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title: DDWG Notes 2024-06-27

layout: default

date: 2024-06-27

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June 27, 2024

Notes by Debra Kazden

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

### ## DDWG Agenda

(Included in email sent June 26, from J.Mafi, Agenda for June 27, 2024)

We will have a DDWG telecon this Thursday, June 27th at 9:30 PDT (12:30 EDT, and 9:30 MST in Arizona). The requested updates to the SR for both CCB#27 and CCB#3 have been updated. Please review the changes (see links in the "Ready for Vote" section below) and be ready to discuss and vote on these SCRs. If there is any remaining time we will also discuss and vote CCB#34 and CCB#38.

#### Front-matter/What's new

1) Submitted to the CCB: (None)

2) New issues in GitHub:

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles – R. Deen

3) Withdrawn by author:

- CCB#30 – Add investigation to investigation as an allowable reference type – A. Bailey

4) Build 15.0 freeze date: 8/13/2024. 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

1) CCB#27 – DOI requires at least an author or editor The proposed SR Amendment has been updated to address the DDWG's comments from the last telecon, and following additional discussions within the working group. This response is intended to address the CCB's comments upon sending the SCR back to the DDWG (see R. Joyner's comment of May 9 the CCB's comments).

2) CCB#3 – Adopt Semantic Versioning with version 2 transition – M. Drum Updated SR Amendment posted by J. Mafi (June 25).

3) CCB#34 – Add terse description to the Investigation class – S. Hughes

4) CCB#38 – Add permissible value mrad/pixel to Units of Pixel Resolution Angular – M. Tiscareno

\*\*(Voted to pass CCBs 3, 38 and 34)\*\*

#### Tier 1 issues

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers

- CCB#4 – Backwards Incompatibility policies – M. Drum

Presentation: Backwards Compatibility

- CCB#5 – Move to V.2.0.0 for June 2025 Release

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

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

- CCB#32 – Add Host type to Observing System \_Component – M. Drum

- CCB#31 – Ensure that dictionary versions are specified in labels – M. Tiscareno

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)

- 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#35 – Add Alias Index and Acronym Index to the Investigation class – S. Hughes

- CCB#36 – Add Mission Phase to the Investigation class – S. Hughes

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD – S. Hughes

- 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 – S. 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 – J. Stone, M. 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-](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzi6RrSzT$)

[CCB/tree/main/data\\_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzi6RrSzT$)

[U5Fi\\_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G\\_oySugL08PIE882UOlKZyZvB9mRzi6RrSzT\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzi6RrSzT$)

Backup: [https://urldefense.us/v3/\\_https://nasa-](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzkMk9OR8$)

[pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzkMk9OR8$)

[=](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzkMk9OR8$)

[U5Fi\\_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G\\_oySugL08PIE882UOlKZyZvB9mRzkMk9OR8\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!KOZituUqvXuOgN8wa8iz-U5Fi_wHvLq9ZtpxQhdBML1rKXD4TByMBBMhHlz3G_oySugL08PIE882UOlKZyZvB9mRzkMk9OR8$) (limited seats)

Next meeting: 7/11/2024 (During July MC F2F)

# DDWG

##Front Matter

The next scheduled meeting is July 11, during the MC F2F open session where people can propose topics to discuss. So far, there are three topics, NaN and INFs, GitHub best practices and backwards compatibility.

There is a new SCR, CCB#40 - Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles. There has already been a lot of GitHub discussion on this. It's a proposal to make file area text allow multiple instances in a bundle product to label products in bundles like the PDS4 errata and voldesc.

Question: Any other new issues?

Answer: (Silence)

# Ready for a Vote

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

This has been bounced around quite a bit. There has been a lot of work and discussion. A new change was posted. Hopefully everyone saw it. It is basically changes for SR that describe rules in schematron. There was an issue posted in a long comment. The gist of it is a philosophical approach to how the SR is managed.

~ The point was that the SR should be as simple and concise as possible. Don't like having specific instructions for DOI use sprinkled through it. Suggested a little paragraph in one location, section 9. Want to consolidate. We can put all the possibilities in the DPH.

Question: Do people have thoughts on this?

Answer: It seems like the best way to go.

~ Another person does like the addition of 6.D.4. 6.D describes identifiers. Seems useful to have DOIs described there.

~ Section 6 is on how to form things, like a LID. DOIs are generated by outside groups. We don't make them, so section 6 isn't the place to put how to use them.

Question: Any other comments?

Answer: This seems sensible, but want the EN point of view. Seems like most SR issues are resolved. Thought a footnote was a great design choice.

Regarding the philosophical discussion, the PPI philosophy is that users will look in different places for information. PPI tries to put information anywhere a user might look. Agrees that it could bloat the SR and be hard to manage changes, but it's not unreasonable to think someone might look in a section on identifiers, not see it and think they can do whatever they want. Would like to vote on the approach and then on the SCR.

~ Someone likes the idea of consolidating to one paragraph in SR, but also capturing in the DPH.

~ Fair.

~ We should do a straw-poll. Authors can implement it and then we can vote later.

**\*\*Strawman Vote** - if we will replace all the information in all sections with one section, 9.J. The vote is either 4 sections or 1 section.

ATMOS - 1 section

EN (Ron) - 4 sections**\*\*** (comment: changes to the DPH will be written by someone besides him.) **\*\*GEO** - 1 section IMG - Abstain IPDA - 4 sections NAIF - Abstain PPI - 4 sections RMS - 1 section**\*\*** (comment: but if there is a good reason for four would like to hear it) **\*\*RS** - 1 section SBN - Not Present**\*\***

The vote is four for 1 section and three for 4 sections. One section carries. It will be worked on off-line and discussed at our next meeting.

Question: Are we postponing because people haven't read it?

Answer: No. Because we need someone to write a section for the DPH. If it's not Ron or Dick, it will probably be Joe.

~ Section 9J does include the footnotes.

Question: If ATMOS changes our vote can this be voted on and moved through today?

Answer: Yes.

**\*\*ATMOS changes their vote to 4 sections\*\***

Question: Anyone else want to change?

Answer: Someone doesn't see a reason we can't resolve this next time. The deadline is in August.

~ Someone else thinks the vote is close enough that we should have both options completely fleshed out.

~ We could vote on July 11.

The evolution is that we started with paragraphs already in the SR, then wrote to include schematron rules, then updated to include classes, then just footnote about deprecated attributes. Many man hours over something trivial. Someone is done working on this.

~ Another person does not agree with all that.

~ But this is causing a lot of work.

Question: Do people want to see both options fleshed out?

Answer: Yes. A complete set. Then we can vote. Hopefully with a full set of voters and abstainers won't abstain.

**\*\*Action Item - Joe\*\*** will write this up and write a section for the DPH.

We will vote on July 11. Please make sure voting members are ready so we can vote quickly.

Question: Can a short summary be written up after this meeting? Concerned about the DPH. Maybe I should put together a summary and put it in GitHub.

Answer: Joe will post a summary and people can comment on it. **\*\*(Action Item)\*\***

~ That would help.

~ Someone wrote comments on the comments that are now in GitHub, typos, etc.

**## CCB#3 - Adopt Semantic Versioning with version 2 transition**

A new version of the write up for the changes. The group worked on it, included changes we discussed



last time and some edits. A slightly edited version from last time. The SCR has also been updated.

Question: Any comments on the current version of this?

Answer: (Silence)

~ This SCR would not be implemented until we go to version 2.0. The likelihood of going to 2.0 with the next version is decent because CCB#27 is a non-backwards compatible change. So this would probably be in the version next April.

~ That sounds backwards.

~ 9J is describing a non-backwards compatible change, and CCB#3 doesn't get implemented until there's a non-backwards compatible change, so it might happen with the next release.

**\*\*The Vote for CCB#3:**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Yes

SBN - Not Present\*\*

**## CCB#38 - Add permissible value mrad/pixel to Units of Pixel Resolution Angular**

There hasn't been much discussion on this, just a comment on the definition for mrad/pixel, placeholder for what it will be.

Question: Any comments?

Answer: (Silence)

**\*\*The Vote for CCB#38:**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Yes

SBN - Not Present\*\*

**## CCB#34 - Add terse description to the Investigation class**

There have been a number of comments on this. Something that stands out is the picture in words. When people hear that they picture the old documents, so didn't like that wording, which is in the Proposed Solution and the Requested Changes.

~ It's a definition that appeared in version 1 and has been throughout the IM.

Question: Is this suggesting a more broad change? It came from a specific dictionary. The question is if there is a broader impact to the IM as a whole.

Answer: Someone just thinks, for historical reasons, from the time of ASCII pictures of spacecraft systems, that they would like to see this removed from the description.

~ Another person also had comments. Thought we didn't need three adjectives. "Concise" seemed like enough.

~ Someone else agrees.

~ The proposal on the table is terse.

~ Still terse, concise would be in the description.

~ Basically synonyms.

~ Yes, so it's a minor point.

Back to the picture in words bit. The question is if we prefer the original description or the new one without that. We can do a strawman poll.

**\*\*Strawman Poll - Yes picture or No picture ATMOS - No, but either way is fine EN - No picture is okay\*\***

If EN is willing to remove that then we don't need to vote now.

Question to Ron: Is it okay to switch to Ethan's wording?

Answer from Ron: Fine

Another Question: Is it okay to edit this in real time?

Answer from EN: Fine.

~ Joe edited the Proposed Solution to use "concise" in real time. The SCR is now updated.

Question: Any other comments?

Answered with Another Question: Why not say drop more words?

Answer: We can make that edit too.

~ A terse description is a terse description. This is basically a recipe for defining definitions. Seems like focusing on one tiny part of the model. Might need to fix it everywhere.

~ It has a description and describes.

~ A fair comment.

Another Question: Anyone else have a strong opinion?

Answer: We should put this on the back burner until next time.

~ No. Edit it to say describes and let's move forward.

Joe made the changes in real time. Now we have the new definition.

Question: Any other concerns?

Answer: (Silence)

**\*\*The Vote for CCB#34**

ATMOS - Yes

EN - No

GEO - Yes

IMG - Yes  
IPDA - Yes  
NAIF - Yes  
PPI - Yes  
RMS - Yes  
RS - No  
SBN - Not Present\*\*

It's unclear why EN voted no.

~ The point is about what a description is. It should use similar language. A terse description is a short form of that, a terse description. The definition is wordy.

~ It passed.

~ Someone agrees, but it is unclear how what we passed is different. Open to amending it.

~ Let's take this off-line.

~ Someone else suggests let's make the change now. We can submit a new SCR later if we want to change the wording.

---

There are a number of major issues to work on for the next release. The freeze date, August 13, is rapidly approaching. We might want to start holding weekly meetings after the F2F.

~ We need to think about what really needs to be prioritized.

~ If the next release is a major revision, would like to get backwards incompatible issue resolved. We can maybe withdraw CCB#5 (Move to V.2.0.0 for June 2025 Release). Maybe. We will discuss that with Mike. The big one we need to resolve is CCB#4 (Backwards Incompatibility policies). Would like to start weekly meetings on the 18th.

\*\*Action Item - Everyone\*\* let Joe know if there are any SCRs that people want to prioritize.

~ There were some from EN that they wanted to work on.

Someone is okay with weekly meetings. On tier one there are a lot of SCRs to clear out. Will look at those. Also want to look at array 1D spectrum. RMS has a use coming for that for Hubble.

Question: What does array 1D spectrum buy you?

Answer: Same as array 2D spectrum. It sends a signal to users.

~ This is an old discussion in object orientated design. It sends the signal that there's something different here.

~ RMS will submit an SCR.

~ DDWG will discuss it.

~ If it's not in the name you add a type.

Someone needs CCB#29 for the next build (Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers).

~ Noted.

Question: Are there others? People can speak now or email Joe later. There's a number that are pretty straight forward.

Answer: Work was started on CCB#29. There are some issues that we need to address before we have

forward movement. See the comments in GitHub on March 26.

~ Someone suggests it should be an **\*\*Action Item for Everyone to look at that comment\*\***.

We will start with these issues.

Question: Are there any last comments?

Another Question: So we are meeting July 11th and then weekly after that?

Answer: Yes. July 11 is the F2F. 8:00 AM Pacific. Joe will send the link out.

~ Tanya, Ethan and Dick definitely need it. Joe will send it to the entire DDWG list when it's available.

## DDWG Notes 2024-07-11

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title: DDWG Notes 2024-07-11

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date: 2024-07-11

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July 11, 2024

Notes by Debra Kazden

### ## DDWG Agenda

(Included in email sent July 9, from J. Mafi, PDSMC DDWG Open Session, July 11 Agenda)

- Discuss and vote on CCB#27 (J. Mafi)
- NaNs and Infs (M. Tiscareno)
- GitHub Best Practices (J. Mafi)
- CCB#4: Backward Incompatible Changes (J. Mafi)

### # DDWG F2F Discussion

#### ## Discuss and vote on CCB#27

The voters are here. Ron will be Voting for EN. It's a special treat for everyone else. A brief example of a DDWG meeting. A DDWG lite. Probably not going to be a lot of discussion on this one. There has been a lot already. Last time we discussed two different documentation options - either in section 9J of SR with additional information in the DPH or in several SR sections, but not in the DPH. There were some edits to the text in the Proposed Changes. Hopefully, everyone has looked. First we need to vote on which approach to take and if we accept the edits, then we will vote on the SCR.

Question: Any comments from DDWG members?

Answer: (Silence)

**\*\*The Vote - 9J for single section or multiple and include edits or not:**

ATMOS - Multiple, include edits

EN - 9J, include edits

GEO - 9J, yes to edits

IMG - 9J, yes to edits

IPDA - 9J, yes to edits

NAIF - Abstain

PPI - 9J, yes to edits

RMS - 9J, yes to edits

RS - 9J, yes to edits

SBN - 9J, yes to edits**\*\***

(EN had audio trouble. Jordan reported their vote and noted that it would not impact the vote outcome.)

**\*\*The Vote to Pass CCB#27:**

ATMOS - Yes

EN - (audio issues)

GEO - Yes  
IMG - Yes  
IPDA - Yes  
NAIF - Yes  
PPI - Yes  
RMS - Yes  
RS - Yes  
SBN - Yes\*\*

This will be sent to the CCB.  
~ On to the rest of the open session.

### ## NaNs and Infs

Matt's presentation jumps off from the presentation Anne gave at the last MC.

~ A recap was requested.

~ Anne's had two slides to summarize the core decisions to be made. The original talk has been uploaded. It was NaN and +/- INF in PDS Data by Anne Raugh. The most important points are that there is genuine disagreement among the nodes about if non-numeric values should be permitted at all. The SR is not sufficiently explicit to be able to use it to decide. The ultimate decision will need to be added to the SR. There are problems in the IM to solve too. The earlier presentation had breakdowns of what's in various standards (PDS, IEEE, etc.). The MC needs to make a decision. We can prohibit them, can allow them as documented flag values or not recommended. Another option is to allow and not document them. That was sort of the PDS3 situation.

Question: Isn't there a fourth option - to allow them only in certain products?

Answer: No. The SR is supposed to be applied to all data products the same way. It can't be node specific.

~ We will have to allow them for SPICE kernels. Need the third option.

~ SPICE has their own internal definitions. We can't globally prohibit in tables or arrays. That doesn't make sense. We also can't make the decision based on possible future edge cases. DPs are being given different instructions by different nodes. The problem needs to be addressed. Edge cases are a different issue. We need a decision for the majority of PDS users.

Question: Sounds like NaNs and Infs might be in SPICE kernels and NAIF wants to make sure they are not prohibited, right?

Answer: Yes. Concerned about future validation. There could be backwards compatibility issues.

~ Several proposals are being made, including some that will be workable to NAIF.

Matt Tiscareno's Presentation: What to do with NaN & +/- in PDS4.

~ This follows from Anne's overview. It's a direct response to that. Seems like she renumbered her options. She pointed out prohibited in ASCII-Real tables and numerical values in labels. Not currently prevented by validate in binary arrays. She suggested we allow or prohibit it and write standards. Now, option three is to allow, but not document, which is not good archive policy. She also spoke about numbers in the subnormal range.

~ Standards prohibits them by implication.

~ It's unclear if anyone would ever use these numbers.

~ It happens.

~ Can clear that up and have DPs reserve values from the normal range.

Would like us to agree that the current restraints and definitions are not sufficient. Validate tool has to search for them either way.

~ For binary tables, which validate currently allows, it can't be explained in a label what it means. Need to fix that. Validate tool needs to be able to find them. Think it could be reasonable to allow them in binary. Calling it option 1 1/2 - if NaN in binary array for missing data, can't have NaN as the missing constant.

~ Missing constant is a string.

~ Validate is rejecting string if the value is NaN.

There are some tickets about this. There are very clear definitions about what special constants match the data.

~ Let's assume all special constants have to be compliant with the ASCII version of their data type.

~ Maybe we need an SCR that says all we need are the same data type as what is being described.

~ There are ASCII numeric types, like ASCII integer. Could define to cover all the data types. Could define more for byte lengths, etc, but could also be used as data types in ASCII tables.

~ A lot of technical details. If missing constant with NaN as value, could define NaN value.

Option 1 1/4 is to bifurcate ASCII real into two data types, although that could be open to misuse.

~ We should ban NaN, at least in ASCII tables.

~ We can also ban NaNs from binary tables, but there is a strong case for allowing them. Like that they occur in the legacy data, as NAIF pointed out. There should be documentation if they are allowed. They could be discouraged. Burden on the DP. This is not the final word.

~ Files are only written once, read many times.

In conclusion, people should look at the slides.

Question: Any discussion?

Answer: (Several hands up.)

Talked about legacy data. Want to mention that MAVEN data sets include NaN. MAVEN is very early PDS4 data. Could try to get them fixed, but worry about that option.

Thank you for this presentation. It's been very interesting and thoughtful. Wonder if you have asked any DPs about the 1.5 option to see if it's reasonable. Not sure they would mind.

~ NaNs are already excluded from ASCII tables, so that's not a change. Haven't discussed this with DPs. The change wouldn't impact current DPs, 1 1/4 might be the easiest thing to do.

~ For the record, someone wouldn't object to putting out a statement that they are allowed, but discouraged.

We are an archive based on standards. The standard is IEEE754 single. Don't see any reason to do anything else. NaN and Inf are already part of the standard. Not sure why we would not allow them in ASCII tables. The only reason seems to be harder, would have to write a parser. Not a very compelling reason. Firmly think we should allow them because it's the standard.

~ Someone has two points to answer that - 1) it's not just hard, it's impossible to write an efficient parser and 2), as for the standard, we modify standards for the archive all the time.

~ A person says they can write a parser and doesn't see any other compelling reasons for not allowing

them.

~ Another someone is concerned with the 1 1/2 solution, not seeing... at least 2 NaNs would have to be included - signalling and non-signalling NaNs.

~ There are problems for signalling NaNs in the archive. We do not allow all standards in the PDS archive. We don't accept many things like FITS, PDF/A - we have constraints. There's absolutely a precedent for only accepting part of an external standard.

~ NaNs and Inf are part of the binary standard.

~ We're an archive. In the future, users finding undocumented things in the data may or may not be a problem. Not clear what will happen fifty years from now. That's why we need a decision now.

~ Someone would really like to hear a compelling reason to ban them.

~ We're compelled to document what's in the archive, but this is sort of like a limbo place for these. Prefer, as an archivist, to be able to document them.

~ Written documentation and the label.

~ For open science and FAIR data it needs to be in the documentation.

Question: Is it a concern that there's no unique bit pattern?

Answer: Well defined in the standard. To detect specific flag values you have to test very carefully for quality. Need to provide guidance for DPs. Need to think about all the implications.

Thanks to everyone for the discussion. We need some specific proposals at the MC level, then we can try to work out some SCRs.

## ## GitHub Best Practices

The background is that the DDWG does issue tracking, submission and issue tracking, on GitHub now. There's an initial comment which is the SCR proposal, then later comments are the discussion on the original proposal (the SCR). We are trying to have guidelines for this environment. Will post adopted guidelines on the GitHub repo.

~ Not publicly visible, so not sure what people are supposed to take away from this discussion.

~ This is the DDWG open session. It's to inform people and give them an opportunity to provide input.

(In Chat it is noted that anyone in PDS can request access. There is no official policy about who gets access to what. The main concern has been privacy from the public, but there's no reason PDS people can't see it. We might not want everyone commenting, but that's etiquette.) ~ The outcomes of discussions are widely discussed. There was an effort years ago to limit the size of the group involved in DDWG discussions. Contributions should come from the DDWG node representative.

Someone is wondering how this is consistent with multiple recommendations that PDS has gotten to open its design process. Maybe this is off topic.

~ If anyone wants access please let Jordan or Joe know.

~ Someone else is curious why we don't provide public read access.

~ We voted that this would not be publicly open. Had two votes - the move to GitHub and to keep it private.

~ It might be better to provide public access. We have to provide access.

~ GitHub is only partially open access.

~ One reason not to have it be public is that there might be discussions about particular users or DPs. We need to discuss things freely, but we might not want them to see. We did vote.



#### Slide - Evolution of the SCR

~ SCRs typically evolve over time. Can end up very different from the original proposal. Discussion is in the comments. When we are ready to vote it can become confusing. For this reason a few proposed guidelines.

The slide says:

It is proposed that the DDWG adopt the following guidelines regarding updating an SCR:

- Updates that are adopted by the original author should be incorporated into the SCR by the author or their designate (rather than remain exclusively in later comments).
- Updates approved by the DDWG should be incorporated into the SCR by the author or their designate.
- The issue title should be updated by the author or designate as needed to accurately reflect revisions to the SCR.
- It is highly recommended that changes outside of the original scope of the SCR be considered for incorporation into a separate SCR

#### Slide - Other Users' Comments

~ There was a presentation by Ethan at the March F2F. Pointed out that comments get edited, but it's not always appropriate. Proposing now that for minor edits the author should be informed when edits are made for things like XML tags, format issues, typos, etc, and that all other edits to the SCR and later comments that rewrite text or make meaningful changes must be approved by the original author.

Question: Any comments on this?

Answer: Someone has a problem with major and minor qualitative descriptors. Not sure these are best practices with a lot of waffling words.

~ Fair point. Maybe we should just say check with author before making changes. Will make that change.

Question: Any other comments?

Answer: (No hands raised)

We need some changes to the wording to be grammatically correct first.

**\*\*Action Item - Joe\*\*** will make the changes.

#### ## CCB#4: Backward Incompatible Changes

This is to get a policy in PDS for how we handle backwards incompatible changes and deprecated items. Will use the word "features" to describe classes, attributes, etc.

#### Slide - Background: Current Practices

~ Author list has now been deprecated, but list author was implemented in a backwards compatible way for now. EN will continue to support deprecated items indefinitely.

#### Slide - Background: Deprecated Features

~ There is a list of deprecated features.

#### Slide - CCB-4 Proposed Changes (1)

~ The slide says:

- 1) Allow backward incompatible changes now and into the future to be implemented when:
  - a) The change is necessary for technical or informational integrity
  - b) Proper justification is documented and the change cannot reasonably be made backwards compatible
- 2) Adopt Semantic Versioning (CCB-3)
- 3) Adopt new Major versions after some number of backwards incompatible changes have accumulated.

We need to really consider if there's a backwards compatible way of making changes before doing a non-backwards compatible option.

~ We already voted to adopt semantic versioning. It went to the CCB.

Items 2 and 3 are at odds with each other. Two is correct, but item 3 is not correct or clear.

~ True. It's not clear. We need to remove number 3. The point is backwards incompatible changes will still be implemented in a backwards compatible way.

~ This was discussed in May. The wording for the third bullet needs fixing.

Slide - CCB#4 Proposed Changes (2)

~ The slide says:

- 1) When we resolve to make a backwards incompatible change, using the following process:
  - a) Add the new class/attribute/value alongside the feature that it is replacing, as an optional member
  - b) Deprecate the previous feature (keeping it compatible temporarily)
  - c) Once the next major version arrives:
    - i) has been deprecated that feature may now be removed
    - ii) if not, wait for the next major version.
- 2) As the deprecated feature is removed, the new feature may be required with that major version change.
- 3) Clearly communicate these changes and this process at the node to any data providers that may encounter that feature.

These are the proposals. Would like to discuss any concerns and how we should move forward. There are a few different opinions about if deprecated items should ever be removed.

Slide - Questions to be Answered

~ The slide says:

- Should deprecated features eventually be removed from the PDS4 IM or should they be left as deprecated permanently?
- What is an appropriate "deprecation period"?
- What procedures should be put in place for deprecated items to be removed from the Information Model?

Slide - Removal of Deprecated Features

Question: Are we going to support changes to older versions to include new changes? If a DP is using a certain version and then needs an update in version 1 that is being put in version 2?

Answer: Someone would guess no.

~ It's a common thing to do. If we remove a deprecated feature, but allow back porting.

Comment for EN: That seems like a lot of work.

EN: there's not enough money to do that. Maybe could do it on a case by case basis if necessary.

~ We could allow it but try to discourage it. The need for it should taper off over time.

- ~ DPs are welcome to stick with older versions indefinitely.
- ~ That's the point.
- ~ They can use an older version of the IM and an updated LDD.
- ~ If a DP needs a feature in version 2.0 then it's up to the DP to update to version 2.0. As a DP, if you are using an older version and it suddenly changes, you would be upset. Think we are confusing the IM with how validate works. IM should be all the up to date formats. Validate can issue warnings, but if we are saying things that have been deprecated... we are blurring the line between the IM and validation.

Changes, two types, might need structural changes, but if frozen on a version should change the version. When a mission wants to use a structure we have, but they need a new standard value, which now requires a new version, that comes up and needs to be addressed.

- ~ Permissible values should be in LDDs.
- ~ LDDs are part of the IM. LDDs are built to specific version of the IM. Not easy to get new values in. If put into a vocabulary service, can check the list of what's included and add or remove.
- ~ Someone likes that suggestion, but it's beyond the scope of this discussion.

One negative is if trying to build software for everything, you can't if deprecated items no longer there. Maybe can try to have documentation.

- ~ We're not going to purge the schema. We have to have a schema library.
- ~ Hard to dig through and find what was deprecated for software. Would need to link to documentation.
- ~ It might help if we handle versions correctly. That will provide some clues about what's missing.

Question: Any more comments?

Answered with a question: IPDA has collections with products of different versions. If major version increments, collection has multiple versions and then is there an issue with validate?

Answer: EN believes that shouldn't matter. Can work with IPDA if there is an issue.

- ~ Someone thinks new versions of validate do use versions in the label.
- ~ The question is how it will work if we remove deprecated things.
- ~ We will have to watch for that. Good point.

Slide - Deprecation Period

- ~ The next question, assuming we adopt the proposal to remove deprecated items from the IM.
- ~ That depends on if we allow back porting to old versions.

Question: How long would you need for that? Another year? Trying to define what EN can support.

Answer: It depends.

- ~ EN could support it for an additional year on an as known basis, but it's best to draw a hard line.
- ~ As long as there's a crack in the door.
- ~ Don't think there will be a policy document.
- ~ Wouldn't publish that.
- ~ Someone would like us to quickly define back porting.

Question: If we went from version 1.20 to 2.0, would we also do a version 1.21?

Answer: Would move from 1.20 to 2.0 and then have 1.21, but don't have to go to 2.0.

- ~ It takes a fork in the road. We want a stop sign for version 1.0. EN could support for some short period of time. Version 1 would be end of life.
- ~ Be careful with that term.

Question: It seems like the main use case is if we need a new enumerated value in a new version. Could we just put enumerated values in older versions?

Answer: We key off file names in PDS, but everything is version 1. Technically, we could version a version. Not how we've done it in the past. Could do it with new enumerated values. For the archive we would have all versions of the files.

~ That sounded like a yes.

Another Question: And would that be less work then back porting?

Answer: It's all the same really, but the benefit is that it introduces it for version 2.0. Could introduce bug fixes for schema/schematron. It would add potential value for us and the archive in the future.

~ Seems like it would remove the need for back porting. Should be a warning if people use a deprecated feature. Also, would be good to announce upcoming changes.

There are two issues to someone's understanding. The only way that features that have been deprecated are known is the schematron rule in common that throws a warning. Don't believe we have anything public facing so people can learn about changes expected in the next release.

~ Yes. Got to note that this is how we deprecate. Could update the text of the note to be more clear.

Question: Any more comments on the deprecation period?

Answer: Not sure how we can do this, but hoped we could do something more proactive to notify stakeholders. Wanted time to make change or reverse it if necessary, and to let people know.

~ Maybe not a good idea, but we could use the data release schedule to notify people.

~ This will take some thought. We should have a place for people to look for upcoming changes and be able to comment on them. Will be doing a talk on this at EPSC. It's important to let the community know about the changes.

~ Hopefully, we can have some sort of proactive notification system. Maybe it could go through the nodes.

~ The freeze point for new releases isn't even enough time for feedback.

~ Someone is concerned with the idea that we are making changes and waiting to see if people complain. We wouldn't have this problem if the public could see the day to day conversations. Asking for public input after decisions are made is really just asking for a reaction.

~ That's something to think about. Part of the issue is notification.

~ The world is our users. We need to be more cognizant that what we decide has an effect on every partner organization in IPDA.

~ Good point.

Question: Any other comments?

Answer: So, if we decide to keep deprecated items in the model forever then this conversation won't be relevant.

~ We would have other conversations.

~ From the EN perspective, schematron's expensive. It will get slower over time.

Slide - Deprecation Removal Procedures

~ If we decide to go this way.

~ It could be helpful to add something like a flag to the IM.

~ A new can of worms. Need it for LDDs, but rules for clean up or not add a lot more complication. We haven't discussed that yet, but could be a deprecated flag for LDDs and ingest LDD.

Question: Will deprecated features be removed or fall out?

Answer: To clarify, there shouldn't be a separate SCR every time. If we are going to the new IM, then at that point the deprecated featured should be reviewed. More tied to the act of incrementing the version.

~ It could motivate other necessary changes.

Someone is contemplating the DDWG discussions.

~ Another person had in mind a single SCR with a list of features to remove or change, from optional to required.

~ Would make sense to have an SCR with all those things to move to a major version.

~ Someone else agrees. Procedure.

Question: Any additional comments?

Answer: (Silence)

~ There is some work to do. Will continue the discussion in the DDWG. Hope to finish before the next freeze.

## DDWG Notes 2024-07-18

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title: DDWG Notes 2024-07-18

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date: 2024-07-18

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July 18, 2024

Notes by Debra Kazden

Version 2 - Chat edited for readability.

Known Attendees: T. Hare, L. Huber, S. Hughes, D. Kahan, D. Kazden, J. Mafi, S. McLaughlin, E. Schaefer and B. Semenov  
Known Observers: A. Bailey, J. Blalock, B. Hirsch, A. Knight, P. Lawton, M. Seritan and M. Tiscareno

### ## DDWG Agenda

(Included in email sent July 16, from J.Mafi, Agenda for July 18, 2024)

We will have a DDWG telecon this Thursday, July 18th at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). The PDSMC voted to allow Inf and NaN in binary data and requested information on the impact of allowing them in ASCII\_Real. We will discuss what the DDWG will need to do to comply with this policy and request. A PPT outlining the issues is attached. We will also continue the discussion on CCB#4. Please be ready to offer any arguments for or against the removal of deprecated features from the PDS4 IM. If possible, I would like to hold a vote on whether to proceed with the current proposed approach of removing deprecated items from the IM or to leave them as deprecated permanently.

### Front-matter/What's new

#### 1) Submitted to the CCB:

- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum)
- CCB#34 – Add terse description to the Investigation class (S. Hughes)
- CCB#38 – Add permissible value mrad/pixel to Units of Pixel Resolution Angular (M. Tiscareno)

#### 2) New issues in GitHub:

- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)
- CCB#42 – Create Array 1D Spectrum (M. Tiscareno)

3) Built 15.0 freeze date: 8/13/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#26.

\*\*(Discussed)\*\*

### Ready for Vote

- CCB#27 – DOI requires at least an author or editor a) We will select from between one of two options for updating PDS4 documentation: SR updates rs version 20240708 rs.pdf or SR updates 20240624b.pdf. Then we will vote on the SCR as a whole.

\*\*(Voted July 11)\*\*

### Tier 1 issues

- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers

- CCB#4 – Backwards Incompatibility policies (M. Drum)

Presentation: Backwards Compatibility

- CCB#5 – Move to V.2.0.0 for June 2025 Release

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

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

- CCB#32 – Add Host type to Observing System Component (M. Drum)

- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)

- 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#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)

- CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)

- 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 (S. 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 (J. Stone, M. Drum) \*\*(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

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

Parking lot – need a drive

- 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!IDj0NUp02nEJku4wVL-x\\_BIWMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r\\_KsLFgW-\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!IDj0NUp02nEJku4wVL-x_BIWMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r_KsLFgW-$)

- Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!IDj0NUp02nEJku4wVL-x\\_BIWMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r\\_DyLpTea\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!IDj0NUp02nEJku4wVL-x_BIWMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r_DyLpTea$)

- Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!IDj0NUp02nEJku4wVL-x\\_BIWMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r\\_DyLpTea\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!IDj0NUp02nEJku4wVL-x_BIWMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r_DyLpTea$) (limited seats)

Next meeting: 7/25/2024

# DDWG

## Front Matter

Three SCRs were sent to the CCB - CCB#s 3, 34 and 38. They are in discussion now. No issues with CCB#s 34 or 38, but there have been issues with #3. Unclear if they know yet that CCB#27 is ready for them.

There are two new SCRs - CCB#41 (Create a way for classes or attributes to be exposed to other LDDs but not to data providers) and CCB#42 (Create Array 1D Spectrum)

~ Reporter said that the first one is something he wrote down years ago. It follows from the meeting in Tucson when reuse instead of duplication and being exposed to additional dictionaries was discussed. Would like to hear from EN if maybe this could be coded into LDD tool.

~ EN saw it. Exposed or not is a binary choice. To make it limited for use we would need to define categories of use and have schematron. The issue will be specifying where and how it can be used. Will add this to the GitHub comments.

~ We wouldn't want them divided by node, but maybe LDD stewards could define.

~ Same situation. We would need schematron rules. LDD would be the classification or set of terms. If it's exposed, it's exposed. Have to constrain it somehow.

~ Wondered if we could use LDD Tool for that.

~ Maybe. Will think about it and add thoughts to GitHub comments.

Unlikely that CCB#41 could be in this build.

Someone plans to withdraw CCB#34. It has been overcome by the work of the editorial work group.

~ Okay.

Regarding CCB#42 - we should be interacting more with the spectral LDD than we have been. Just proposing that what already exists for array 2D spectrum is duplicated to be available for array 1D spectrum.

We voted on CCB#27 at F2F.

NaN and Inf - the MC voted to allow them in binary data and they want information on allowing them in ASCII real. There's a PowerPoint attached to the agenda email (See attachment pdsmc-inf-nan-vote-20240718-v0.pptx, attached to July 16th email.) Think we need to create an SCR, update the documentation and add attributes. They also wanted us to define NaN and Inf in a product.

Question: Any comments?

Answered with Another Question: Has anybody considered use of special constants for documentation? Doesn't have meaning, but could add that.

~ To use that was someone's understanding.

~ We could add NaN meaning and Inf meaning, but still concerned.

This belongs in the special constants class. Can extend it.

~ We just need to update validate. It has ASCII short string collapsed, but it doesn't allow NaN.

~ No, validate is operating on the data in the file. The value of an attribute shouldn't fail. Haven't tried



it.

- ~ Talking about describing NaN and Inf in a binary table. Need to describe.
- ~ Yes, but the issue is that the values of a special constant should be the same data type as the value they are describing. That might be the issue here.
- ~ The problem is we're talking about binary IEEE754. Unclear how to represent that in an XML label.
- ~ Special constants have to be represented in ASCII.
- ~ The validate issue came from RS. Validate was rejecting NaNs in binary tables, which should be allowed.
- ~ Can't have the same data type for a binary data file and an ASCII label. Unclear what's going wrong.
- ~ Validate is having an issue.
- ~ So we need to fix that at the system level.

The question is if validate is finding and flagging NaNs.

- ~ Someone believes it does. Has data with NaNs that are flagged. Thought from the original request that there was a desire to record what the missing constant value meant. Unsure if we need to extend to include that. Thought that was what the MC wanted.
- ~ It's a class. Think the meaning is encoded in the name.
- ~ For someone, invalid and missing constant are the same thing.
- ~ Missing means it's missing and invalid means that what's there is invalid. Would be good to be able to add a comment, but that's separate from the NaN and Inf question.
- ~ Someone thought that was what the MC wanted. A desire to describe what the values meant.
- ~ There are definitions.
- ~ Someone else thinks the MC preferred to leave the details to the DDWG.

Question: Do we all agree that NaN will be in a data file or a numeric fill value?

Answer: The defined bit set.

- ~ In binary table it can be either. Need a rule. See the chat (Included at the end of these notes). Validate is rejecting NaN.
- ~ Someone just found the validate code. NaN is not allowed. The code needs to be updated.
- ~ See the validate issue by Jennifer Ward in the chat.
- ~ We need to get the tickets to fix validate addressed and have some documentation for the SR. We can work this off line.

The second request was for clarification about NaN and Inf in ASCII real. Believe that would be files with "NaN" or "INF" in the real field.

- ~ Right. SR does prohibit that.
- ~ The question is about the impact if we decide to allow them in ASCII real.
- ~ Someone would prefer not to change that. Can be replaced by an ASCII value.

Discussed that. No resolution, but on OpenPlanetary people said no good way to parse. It's fifty fifty no matter who you ask. Some people like it, some people don't.

- ~ It would be a back door to NILing fields. It's opening the door to many potential consequences.

Question: Were the concerns about machines being able to read NaN and Inf? Hoping we can work on this. No hurry for the next build.

Answer: Someone is getting a sense this will be voted down. Maybe we just should vote and kill it.

- ~ The MC requested clarification on the consequences. We can recommend not to allow it, but the request was to provide feedback.

- ~ Some were against this and would be happy to have this go away.
- ~ We don't want to waste anyone's time.
- ~ Someone played with it a bit in Excel, but not everyone uses that.
- ~ Another person thinks it has to do with implementation details and which parser is used and if it supports NaN. If it adds significantly to validate time that could be a concern.
- ~ End users was more of a concern than validate time.
- ~ Regarding Excel - someone thought Excel didn't know what to do when it encountered a NaN.
- ~ It was someone's impression that Excel just ignores it.
- ~ Doesn't handle it well is more accurate.

We should move on for now. We have some clarity on the action items. We can work on this for the next build. There are SCRs that we need to discuss before the deadline.

- ~ There is work to do off line. We should form a Tiger Team. Sounds like RMS will be part of it.
- ~ For ASCII real - Yes.

Question: The MC voted yes on binary, so do we have to vote here?

Answer: We need to make a Change Request.

- ~ And update documentation.
- ~ We were only asked to report back on consensus for ASCII. Someone needs an action item to write one or more SCRs.
- ~ Joe will start, but will need help.
- ~ Ethan volunteers to help Joe and will be on the Tiger Team.
- \*\*(Action Item - Joe and Ethan)\*\*

Question: Does anyone else want to be on the Tiger Team?

Answer: (Silence)

# Tier 1 issues

## CCB#4 – Backwards Incompatibility policies

Someone would like to discuss the question about if deprecated features should be removed from the IM or left indefinitely. We did discuss this at the F2F. Want to hear where people are on this.

Question: Comments?

Answer: When it comes to the EN end, deprecated items remain in Protegee. Would vote for leaving them in as part of the provenance. That's their preference.

Another Question: Would they still be in schema and schematron?

Answer: If the DDWG doesn't want to see them in schema/schematron they will come out, but they will still be in Protegee.

- ~ That sounds good to someone.
- ~ The DDWG would have to decide if the data dictionary would show deprecated items.
- ~ Good point.

Question: Other comments? Not sure there is much argument. We can vote to see how we want to move forward with this SCR.

Answer: Item 3 needs to be removed first. Item 2 already covers it.

- ~ Okay.

- ~ There's an alternative comment in GitHub - suggested it be rephrased or that we drop the third item for clarity.
- ~ The point is that CCB#3 already deals with it.
- ~ CCB#3 already says it.
- ~ Correct. We need to rework it, but would like to make this decision.

The question is should deprecated features be removed or left as deprecated permanently. Yes will mean remove deprecated features and no will be don't remove.

Question: How about remove or leave?

- ~ Still in Protegee data base, but take out of schema and schematron.
- ~ A third option is to let EN decide.
- ~ Someone believes EN wants to leave them in schema and schematron.
- ~ This is a technical issue. We should do whatever is best for EN.
- ~ It's an issue for DPs too.

Let's vote on three options - remove, keep or let EN decide.

- ~ Okay, so keep deprecated features in schema/schematron, remove them or let EN decide.

Question: Any questions?

Answer: Clear.

**\*\*The Vote for the three options - remove, keep or let EN decide:**

ATMOS - Remove

EN - 1 and 3

GEO - Remove

IMG - Remove

IPDA - Not Here

NAIF - Abstain

PPI - Remove

RMS - 1 and 3

RS - Remove

SBN - Abstain (later changed to "no vote" in email because Mike was not present to vote)\*\*

Someone is pretty sure that SBN wanted to remove them.

- ~ Looks like we move forward with the SCR as it is currently written, where the deprecated features are removed after a period.
- ~ The vote was for schema/schematron. We need to decide about documentation too.
- ~ We are not voting on the entire SCR now, just that one point of the SCR.
- ~ There is lots of documentation. Unclear if we want to limit the question to user documents.
- ~ Someone is comfortable with that.
- ~ We need to vote on the data dictionary and user specification.
- ~ We will revisit this.
- ~ Need to decide what this applies to. Could be useful to have a list of deprecated features.
- ~ EN dumps the complete dictionary to JSON and gives it to programmers. It's useful to know what has been deprecated.
- ~ We have more work to do.

Question: Any last thoughts?

Answer: (Silence)

~ We will be meeting again next week.

Question: Can we talk about CCB#24 for a minute before we end?

Answer: Yes.

## CCB#24 - Reform unit definitions

The Tiger Team has created a new version of the SCR and uploaded a file to GitHub with examples of how they would rewrite descriptions. They could do it for all units, but want confirmation they are on the right track first. Might be able to remove CCB#25 (Reform Units of Misc, Units of None, and Units of Rate). Want feedback on CCB#24. Would like to vote on this before the deadline.

**\*\*Action Item - Everyone\*\*** look at CCB#24 and get feedback to Matt.

Question: Anything else?

Answer: (Silence)

# Meeting Chat

Matt T (Guest)9:54 AM

The missing constant attribute provides a value that indicates the original value was missing, such as due to a gap in coverage.

Matt T (Guest)9:54 AM

The invalid constant attribute provides a value that indicates the original value was outside the valid range for the parameter.

Matt T (Guest)9:55 AM

The not applicable constant attribute provides a value that indicates the parameter is not applicable.

missing constant>NaN</missing constant by Matt T (Guest)Matt T (Guest)9:55 AM missing constant>NaN</missing constant

Link [https://urldefense.us/v3/\\_https://github.com/NASA-PDS/validate/issues/956\\_!!PvBDto6Hs4WbVuu7!!Dj0NUp02nEJku4wVL-x\\_BIWhMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r\\_FwLFXCy\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/validate/issues/956_!!PvBDto6Hs4WbVuu7!!Dj0NUp02nEJku4wVL-x_BIWhMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r_FwLFXCy$) by Matt T (Guest)9:57 AM

code: Link [https://urldefense.us/v3/\\_https://github.com/NASA-PDS/validate/blob/b8aa9ad0d97847cbcea7b96c9987190cdf96b401/src/main/java/gov/nasa/pds/tools/validate/content/table/FieldValueValidator.java\\*L587\\_!w!!PvBDto6Hs4WbVuu7!!Dj0NUp02nEJku4wVL-x\\_BIWhMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r\\_DZ7eLaR\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/validate/blob/b8aa9ad0d97847cbcea7b96c9987190cdf96b401/src/main/java/gov/nasa/pds/tools/validate/content/table/FieldValueValidator.java*L587_!w!!PvBDto6Hs4WbVuu7!!Dj0NUp02nEJku4wVL-x_BIWhMDWbiYK9uqxIzb9dRZqRrYG3KWgHus2WowUhnOK1qfAjjbz4WP2abGLYmIXFm7r_DZ7eLaR$) by Hare, Trent 9:57 AM

Hare, Trent M 10:08 AM Edited

Ethan, I wonder if an existing numpy array has a Nan, what does it write out (for a CSV)?

Schaefer, Ethan 10:13 AM

Hare, Trent M7/18/2024, 10:08 AM Ethan, I wonder if an existing numpy array has a Nan, what does it write out?

It writes nan. For example:

```
a = numpy.array([numpy.nan, numpy.nan, numpy.nan])
```

```
numpy.savetxt(sys.stdout, a)
```

```
#prints...
```

```
nan
```

```
nan
```

```
nan
```

1 Like reaction.

## DDWG Notes 2024-07-25

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title: DDWG Notes 2024-07-25

layout: default

date: 2024-07-25

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July 25, 2024

Notes by Debra Kazden

Known Attendees: T. Hare, L. Huber, S. Hughes, D. Kahan, D. Kazden, J. Mafi, S. McLaughlin, E. Schaefer and B. Semenov Known Observers: A. Bailey, J. Blalock, B. Hirsch, A. Knight, P. Lawton, M. Seritan and M. Tiscareno

### ## DDWG Agenda

(Included in email sent July 24, from J.Mafi, Agenda for July 25, 2024)

We will have a DDWG telecon this Thursday, July 25th at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). We will discuss the following items:

We will discuss CCB#24. Please review the selection of revised units definitions which has been produced by the CCB#24 tiger team and posted on GitHub (UnitReform240710.pdf). The tiger team is seeking approval for the format of revised definitions before producing a complete list for the requested changes.

We will continue the discussion on CCB#4. Last week the DDWG voted to move forward with the current proposal to remove deprecated features after a period of deprecation. Please review the word document that I posted on GitHub (ccb4-proposed-solution-revision-20240723.docx) with some rather extensive revisions to the current proposed solution.

### Front-matter/What's new

#### 1) Submitted to the CCB:

CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum)

CCB#34 – Add terse description to the Investigation class (S. Hughes)

CCB#38 – Add permissible value mrad/pixel to Units of Pixel Resolution Angular (M. Tiscareno)

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

#### 2) New issues in GitHub:

CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)

CCB#42 – Create Array 1D Spectrum (M. Tiscareno)

#### 3) Built 15.0 freeze date: 8/13/2024. The following SCRs are queued for implementation:

CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#26.

\*\*{Discussed}\*\*

### Ready for Vote

(None)

### Tier 1 issues

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers
- CCB#4 – Backwards Incompatibility policies (M. Drum) Presentation linked here: Backwards Compatibility
- CCB#5 – Move to V.2.0.0 for June 2025 Release
- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year
- CCB#11 – Add a Funding Information class to the Identification Area
- CCB#32 – Add Host type to Observing System Component (M. Drum)
- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)
- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)
- 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#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)
- CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)
- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)
- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)
- 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 (S. 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 (J. Stone, M. 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!

- 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!P73GXo4N\\_UeMVjsXlsfbjij14oKbibWOdpILlrdF0WMIpoMh-QUsB8BJ9-Izn3eKnLWKA36-MI05s4pudlenQNcLimy4bi5i\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!P73GXo4N_UeMVjsXlsfbjij14oKbibWOdpILlrdF0WMIpoMh-QUsB8BJ9-Izn3eKnLWKA36-MI05s4pudlenQNcLimy4bi5i$)

Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!P73GXo4N\\_UeMVjsXlsfbjij14oKbibWOdpILlrdF0WMIpoMh-QUsB8BJ9-Izn3eKnLWKA36-MI05s4pudlenQNcLiuiFiUGJ\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!P73GXo4N_UeMVjsXlsfbjij14oKbibWOdpILlrdF0WMIpoMh-QUsB8BJ9-Izn3eKnLWKA36-MI05s4pudlenQNcLiuiFiUGJ$) (limited seats)

Next meeting: 8/01/2024

# DDWG Meeting

## Front Matter

No new SCRs this week.

CCB#27 (DOI requires at least an author or editor) is in discussion by the CCB now.

The main issue that we are trying to work on this week is CCB#4 (Backwards Incompatibility policies), but we will also discuss CCB#24 (Reform unit definitions) this week. We might discuss CCB#33 (Change cardinality of File Area Inventory to allow multiple inventory files for a single collection) next time.

People can let Joe know if there are others and he will try to get them on the agenda. Maybe CCB#13 (Ensure file name and directory path name adhere to SR).

~ CCB#42 (Create Array 1D Spectrum) seems straight forward.

~ We can look at that one too.

# Tier 1 Issues

## CCB#24 - Reform unit definitions

A write up has been added to GitHub by Matt with suggested wording for revising the unit descriptions.

Question: Any comments?

Answer: One person said they generally think these are improvements and they would probably vote in favor of them.

~ Hopefully everyone got a chance to look. If there are no issues, we could vote to approve the format before the Tiger Team goes through and updates all the units.

~ Yes.

Question: Any comments? Complaints on how these are written up? There were a few differences of opinion.

Answer: Mostly in the parenthetical remarks. Agree on most of them.

Another Question: Is the vote that everything in the PDF will be implemented?

Answer: Voting on the format, like in units of length. That description would be used as a sample to reformat all units in the IM. Formula is abbreviation (if there is one) and what type of unit and some description of what it represents.

~ Seems like a lot of work for EN.

~ EN has commented that the units were originally in as place holders.

~ Steve is on the Tiger Team and fully supports this.

~ Someone thinks we are talking about definitions. Added physical meaning.

Question: Any questions or concerns?

Answer: Before we send this to the CCB we will need a complete list of all units that will be changed. We can vote that this is the correct format.

~ Right. The vote is on the format.



- ~ Someone is curious sometimes it's a carrot versus double asterisk.
- ~ Maybe based on what was there before.
- ~ Another someone thinks we had double asterisks. We should look that up in the standard.
- ~ The Tiger Team will use a double asterisk.
- ~ Another concern is about the use of the word billion, an FYI.

Question: Do we agree this is a bug and would be backwards compatible?

Answer: Yes. The Tiger Team is not changing any values. Should have no effect on dictionaries. AU is a defined value.

\*\*The Vote on the proposed format used in the document on GitHub, with noted change - carrots would become double asterisks:

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Not Here

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Yes

SBN - Yes\*\*

We will move that forward. We will also withdraw CCB#25 (Reform Units of Misc, Units of None, and Units of Rate) Ron will need emails on all of this.

- ~ Matt added a note in GitHub, which is public. Unclear what the process is for withdrawing an SCR.
- ~ Send the request to Ron, with the status marked as withdraw. He will lock it so the SCR won't be touched.

### ## CCB#4 - Backwards Incompatibility policies

We voted last week to move forward with removing deprecated features. Joe posted a proposed update to the wording of the Proposed Solution. People should let Joe know if they have any comments.

- ~ Someone said numbers 1 and 2 are perfectly fine, but they don't like the approach in numbers 3 and 4. The IM defines how we should be archiving. Don't like implementing non-backwards compatible changes in compatible ways. Deprecation should be a feature of validation, not built into the IM. Don't like the direction this is going.
- ~ Another person agrees.
- ~ Interesting. The IM exists in Protegee. Deprecated items won't be removed from that, so they will be kept forever. Maybe it's not clear in the IM, but we really are removing them from schema and schematron documents, maybe additional documents too.
- ~ Number 4 talks about that, which documents deprecated items will be removed from and that they will be left in Protegee and tools.
- ~ Someone else thought the vote last time was just on schema and schematron, no other documents.
- ~ True. There was no discussion of other documents. Could be confusing to have in the IM.
- ~ We don't want to confuse users. JSON document is very useful for programmers. We need to be clear.

~ If that should be removed from the list, it will be.

Question: Can it be marked as deprecated for programmers?

Answer: It's very clearly marked in Protegee. True or false.

Another Question: Any objections to taking JSON off the list?

Answer: We should list what we want to take it out of, say what it's specifically omitted from.

~ If we say system documents, such as blah, blah, blah, that might be helpful.

~ Ops documents.

~ One person has written programs without looking at the JSON. Seems that programmers could use JSON, schema, schematron. Unsure what they are missing here.

~ Schema and schematron don't contain all of the info in the IM. JSON has almost complete dump of the Protegee data base. It captures the behind the scenes stuff. There was a template developer at JPL who used JSONs, then schema and schematron.

~ Thank you.

Back to the comment about not doing backwards incompatible changes initially in backwards compatible ways. Believe doing that is the current practice and has expected that to continue, to give users a chance to know things are deprecated before they go away.

~ Some changes are not backwards compatible. We are changing unit definitions. In some ways that is not backwards compatible. Don't think we can guarantee all changes in the future can be implemented in backwards compatible ways.

~ Fair. Most things can be added as optional, but sometimes there is a class we want people to start using.

Question: Would it help if we added the phrase "if reasonable to do so", so a caviot in case there is a change someday we want to do?

Answer: That makes the standards a very wishy-washy document. All of a sudden we are back to PDS3.

~ Yes. Was thinking about deprecating and removing when this was written, but just adding a new required thing has no deprecated feature to remove. Would still need the process in number 2, a period of warning, but part 4 would need to be adjusted for that. Maybe we should tailor the language and update the sections.

~ Someone withdraws their wishy-washy suggestion, but not seeing why adding optional is difficult. Unclear why it is hard to do in a backwards compatible temporary way.

~ Renaming.

~ Originally had a note about implementing required features as optional, which A kind of speaks to, and follow up says A eventually will be required. Need to add that.

~ So, in principal, we might be signing up to do something that we can't do, but in practical, not sure we should worry about making allowances for how to do it.

~ It's hard to find specific examples that won't work in this framework, but don't want to deny it will ever happen.

Question: What about list author/editor when the DOI is there?

Answer: DOI got watered down so you can use list author/editor or author/editor list.

~ Temporary.

~ Originally wrote the SCR to be backwards incompatible, but implementation made it all optional.

~ An expression of what we're discussing with CCB#4. Not seeing how that is difficult.

Another Question: Is it possible to have a warning?

Answer: Schematron will put out a warning, which is like a suggestion in Oxygen.

~ Good. That's what we want.

- ~ Maybe it should be stronger than a regular warning.
- ~ We need a formal way of advising people that deprecated items will be removed at some future date. A place where users can find a list.

Someone had a user try to use version 22. They saw that author/editor list was deprecated with no suggestion of what to use.

- ~ The warning should say what to do instead.
- ~ We have 124 deprecated items in the schematron rule itself.
- ~ We seem to be adding a whole new level of complexity for deprecated items. It's overkill. Concerned about schematron rules popping in depending on the phase the deprecated item is in.
- ~ Someone agrees. A lot of burden on validate.
- ~ Yes, it will take more time to validate too.
- ~ Deprecated warnings should be coming out. Nothing talks about that.

Someone wonders if we could get EN to do an assessment of deprecation as a process. Could have green, yellow, orange and red deprecated warnings. Unsure if EN has a preference. Speaker would prefer red if someone made a mistake, but we aren't going down that path at the moment.

- ~ Now we only have a few categories.
- ~ Warning period when going to make change - would need to note it somewhere. There's no warning period in schematron.
- ~ We should put warnings in before we implement it - in six months you will need to use list author/editor instead of author/editor list. Would just have red and green.
- ~ A lot of users won't read notifications. A warning might be more useful. Maybe we need a waiting period on a case by case basis, but we might want to allow things before they are required.
- ~ Typically things are added because someone wants it.
- ~ This will lock people into an IM. They will refuse to move up.
- ~ True. There are already people who will stick with version 1, no matter what.
- ~ NAIF wants to do that. I'm doing restorations. Think it's okay to stay with the IM I started with, 1.21.0.0.
- ~ The big change to 1.22.0.0 is list author.

Question: Any other comments? Updates will be made to the document in GitHub **\*\***(Action Item - Joe)**\*\***. We can vote next week on the approach. A lot of what's in the document is formalizing what someone thought was the procedure anyway, even though it won't work in every case. Last thoughts?

Another Question: The framework being developed, is this for LDDs too? Or only for the common DD?

Answer: Someone would like this for LDDs too.

- ~ It has to go across.
- ~ We need to understand the impact to the system.
- ~ It would be nice to have schematron rules for LDD stewards.
- ~ That's a whole new level of management.
- ~ Another someone thinks the wording needs work. Can help. Thinks the intent is reflective of what we've been discussing, but the wording needs to be worked out. Not trivial, in their opinion.

[Joe was disconnected here.]

Someone always thought we should have a timer for these meetings.

- ~ We are going to meet again in a week. No votes to take.
- (Everyone agreed and began signing off)



## DDWG Notes 2024-08-01

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title: DDWG Notes 2024-08-01

layout: default

date: 2024-08-01

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August 1, 2024

Notes by Debra Kazden

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

### ## DDWG Agenda

(Included in email sent July 29, from J.Mafi, Agenda for August 1, 2024)

We will have a DDWG telecon this Thursday, August 1st at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona).

We will discuss the following items:

- 1) We will discuss CCB#33. Please be read and be ready to discuss the proposal.
- 2) We will continue the discussion on CCB#4. A slightly revised version of the proposed solution that we discussed last week has been posted to GitHub. If there are no major comments or concerns posted to GitHub, I plan on voting on accepting the language in the current version of the document (ccb4-proposed-solution-revision-20240729.docx). Please be ready to discuss.
- 3) If there is additional time we will discuss CCB#42 Create Array 1D Spectrum.

### Front-matter/What's new

#### 1) Submitted to the CCB:

- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum)
- CCB#34 – Add terse description to the Investigation class (S. Hughes)
- CCB#38 – Add permissible value mrad/pixel to Units of Pixel Resolution Angular (M. Tiscareno)
- CCB#27 – DOI requires at least an author or editor

#### 2) New issues in GitHub: (None)

#### 3) Built 15.0 freeze date: 8/13/2024. The following SCRs are queued for implementation:

CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#26.

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

### Ready for Vote

(None)

### Tier 1 issues

- CCB#13 – Ensure file name and directory path name adhere to SR
  - CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
  - CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers
  - CCB#4 – Backwards Incompatibility policies (M. Drum)
- Presentation: Backwards Compatibility
- CCB#5 – Move to V.2.0.0 for June 2025 Release
  - CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

- CCB#11 – Add a Funding Information class to the Identification Area
- CCB#32 – Add Host type to Observing System Component (M. Drum)
- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)
- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)
- 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#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)
  - CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)
  - CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
  - CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)
  - CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)
  - CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)
  - CCB#42 – Create Array 1D Spectrum (M. Tiscareno)
  - 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 (S. 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 (J. Stone, M. 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!

- 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!PFiR1hwGa08aWnPFRlmyrsoIDHB5wsjzJt5zUH3Js4xPr3WPHtChKY5px9DjDFChwrEfqOLbzzuCG7BQL0aV6bvxD0z13Xth\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!PFiR1hwGa08aWnPFRlmyrsoIDHB5wsjzJt5zUH3Js4xPr3WPHtChKY5px9DjDFChwrEfqOLbzzuCG7BQL0aV6bvxD0z13Xth$)

Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!PFiR1hwGa08aWnPFRlmyrsoIDHB5wsjzJt5zUH3Js4xPr3WPHtChKY5px9DjDFChwrEfqOLbzzuCG7BQL0aV6bvxD0z13Xth\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!PFiR1hwGa08aWnPFRlmyrsoIDHB5wsjzJt5zUH3Js4xPr3WPHtChKY5px9DjDFChwrEfqOLbzzuCG7BQL0aV6bvxD0z13Xth$) (limited seats)

Next meeting: 8/8/2024

# DDWG Meeting

## ## Front Matter

There are no new SCRs this week.

## # Tier 1 issues

### ## CCB#33 - Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

There has been a lot of discussion on this one in GitHub.

~ A lot of the discussion was about a process problem. The request is really to add products in accumulating bundles, a paradigm we successfully used in PDS3 for decades. The issue is that the inventory file is a single cumulative file, so every time we get an incremental delivery we lose information about what's new or in each release. Having physically separate files is a benefit to the user and to us, once we merge the inventory it's practically impossible to re-validate the inventory. Validating each release is tractable. The request is to allow more than one inventory file for a collection. Just need to change the cardinality. Tools would need to be able to read the files in a loop.

~ Lots of concerns were expressed in GitHub.

~ Someone who was active in the conversation says we are mostly talking about if this is really needed and why other ways of doing it are not sufficient. Would have thought the standard way of doing it would be to have the DP update the collection, not the node, so not getting that collections are too big to manage. Have a lot of questions.

~ There was a suggestion to break them up by delivery or start time, something. For PPI the divisions would be completely arbitrary, so would prefer not to do this, but PPI's collections are smaller than what others are dealing with.

~ That's the key point. Personally, have been delivering data for decades, and any time based division would be arbitrary and hard for users and nodes. A non-solution. An extreme example is that MRO was doing PDS4 migrations. They wanted to do a single volume, not have it divided by CD size, like it was in PDS3.

Someone wonders if there is already a solution for this outside PDS. Wonders if other data systems have run into this.

~ It would be interesting to see if other data systems have dealt with this, but IMG seems to need a quick solution. One of my concerns is the impact on PDS tools. Jordan said it would be okay, but it would be nice to have him weigh in specifically.

A TA was requested, but response was that that comes after the vote.

~ No. TA is before the vote.

~ Someone believes there is a TA.

~ That was added this morning with a lien. It's not official, but it's there. The TA that was requested from systems isn't there yet, but believe Jordan said he could make this work.

~ Someone else reported that Jordan said the impact would be about a week of time.

~ That was eight minutes ago.

~ Not everyone has seen that yet.

The technical concern is separate from the impact on users. If collection inventory is unbounded things could get completely fragmented.

~ True, but the system can always be abused. Hard to prevent silly things from happening. Not sure it's a

good reason to not allow something we need.

~ Someone agrees there should be some constraints or best practices in the DPH to comment about when doing this would be allowed.

~ No problem with that. Hopefully peer review would stop silly stuff from happening.

~ Maybe a certain number of entries before we start adding a new inventory to a collection.

~ Arbitrary. Could make a rule only to use it for accumulating bundles.

~ One node said that a lot of the collections they get will not need that. It's a large number of files before it gets onerous, so would want a guideline. Say if it's over some large number of products that DPs might want to add an additional inventory.

~ The problem is wanting to treat them the same regardless of numbers of files. Want to be consistent.

~ Someone has the opposite view.

~ Another person would rather see a guideline. Let the DP and the node negotiate rather than having a hard and fast rule. Guideline would give flexibility. A rule would be enforced in the standard.

~ Sounds like we would require an extra inventory if the number of files goes over a certain number of files.

~ A guideline is not an effective management strategy. We should have a rule. This seems to be two problems - sometimes collection product gets so enormous it can't be easily read and DP doesn't want to update entries in the collection product. Would suggest multiple collection products may be allowed if it's some large number of files.

~ But then breaking up along arbitrary boundaries. Would prefer along release boundaries.

~ Releases should already be documented. Users don't care about that.

The paradigm that IMG has followed is that DP would provide a complete bundle for an update. As a DP historically, it's not feasible to look at PDS for the merge. That's the node's job. Having the DP do it will lead to problems.

~ Someone is not sure they follow that. DP should know what has been delivered in the past and what might need to be delivered.

~ Another person agrees. DPs should know if they need to deliver or remove products.

~ Right. That's why they provided a bundle. Node might remove a product or fix label problems. DP's pipeline doesn't need to know that happened.

~ They need to know what they have delivered to PDS, not what's in PDS.

~ Sounds like IMG might be handling accumulating bundles different for the rest of PDS.

~ That's not surprising. PPI does its mission by mission. Uses a flexible approach, that is negotiated with the DPs.

Under the paradigm being proposed, if a new version of a data product is being delivered, and you need a new inventory....

~ We are talking about one collection, logically speaking. There might be a misunderstanding here. Would cat all inventories into one logically speaking. A single collection.

~ There should only be one version of a product in a collection. Superseded ones should be removed.

~ IMG doesn't remove versions that are superseded. They are still archived. User would use the highest version available. Think EN is working on deprecation and superseded, but that's a separate issue.

~ PPI would remove the old one from the inventory and supersede it. Not keep it with the current version of the archive. Interesting that your node handles it different.

~ Certainly that way the question makes sense, but not in the IMG paradigm.

~ Someone would have thought that wouldn't be allowed.

~ Old products don't go away, but a new inventory can be created that shows the new products.

~ The system will help users.



- ~ People might want to browse. They shouldn't find the superseded products. Thought that was basic.
- ~ Good point. We should do some research. Unsure.

Question: Will Validate allow a collection to pass with multiple products with the same LID and a different VID?

Answer: Yes.

- ~ A data management issue.
- ~ Someone thought we would reissue collection products so superseded products would go away.
- ~ Someone else agrees.
- ~ Nothing prevents that, just not what IMG is doing.

Question: Any comments?

Answer: (Silence)

- ~ We need to write up best practices for the DPH when we agree on them.

Another Question: Can we establish a Tiger Team to work on this?

Answer: Very good idea. We need volunteers.

- ~ Someone is not sure where we landed. This is a philosophical question more than a technical issue.
- ~ There are technical issues too. Not sure we understand them.
- ~ Someone else agrees that they are not sure a Tiger Team can solve a philosophical issue. Would be interested to characterize the number for a release.
- ~ We could say something very large.
- ~ The question is what the really big ones are doing, like CSS, Mars 2020 and LROC. We should find out what current people are doing. Tiger Team could look at that.

We need volunteers to look and see what's been done with other large collections.

- ~ Ron will be on the Tiger Team.
- ~ It's a big question for accumulating collections.
- ~ The question is what others are doing and do they like how it works and if they are happy with arbitrary breaks.
- ~ Trent volunteered to be on the Tiger Team.
- ~ Bob too.
- ~ And Joe will be on it too.

Someone is interested in breaking up a collection. You could still search bundle or collection.

- ~ Someone else is thinking of a user coming to PDS, not sure how the data is broken up, and being unsure what to do next. They will want the top level, but from PDS point of view, unsure how to get a user there.
- ~ Sometimes you really do want everything.
- ~ It's straight forward to do a search on a single collection. Tools can help, but almost need another level of hierarchy to deal with time breaks.
- ~ If search tool is well constructed it shouldn't matter, and if the user wants to browse, they can, by clearly marked observation dates. If want to search on observational geometry, then the divisions would disappear. Unsure why this is a problem.
- ~ That's the whole point. It depends on how users would want to search and what would be helpful.
- ~ It gets to the question of what really is a collection.
- ~ Search tools shouldn't see collection boundaries.
- ~ Then there's no reason to have collections broken into meaningful bits.

We have a Tiger Team - Ron, Trent, Bob and Joe. They will do some research and clarify an approach and come back to the group.

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We have ten minutes left.

~ CCB#4 is on the agenda, but there isn't time for that.

~ Someone wants to discuss CCB#29.

~ CCB#29 wasn't on the agenda for today.

## CCB#29 - Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers

Someone is having trouble getting product external to validate.

~ If we break it up, the LID is already handled.

There is some confusion about the number of segments for LIDS.

~ EN did not limit it. The SCR specified four.

~ No. We wanted six. We need to adjust that. We want to be able to have product bundle and collection with type external.

~ Someone else thought five or six were allowed.

We need to see the SCR in Jira.

Someone recalls that we went back and forth. Believe we landed on four.

~ That might be, but it isn't what we wanted.

Matt is sharing his screen to show CCB-357, Jira as a PDF.

Someone is not seeing anything there about segments of the LID.

~ Someone else suggests looking at the Requested Changes. That's what gets implemented.

~ Still not seeing a limit.

~ The example has six segments and then there are comments.

Question: So why is it now limited to four?

Answer: We need to take this off-line.

~ ATMOS needs this in. They were funded to do product external. It needs to be in the next build.

We can talk about this next week.

##CCB#42 - Create Array 1D Spectrum

There has been discussion in GitHub. Spectral LDD came up, but that's really a side conversation.

~ Someone needs what's in array 2D spectrum to be in for array 1D spectrum.

~ We might need to make additional updates to the SCR.

~ Those would be a new SCR. Wanting to use array 1D spectrum.

There are no philosophical objections.

~ Someone else is supporting this.

~ Up to now, most people have used tables, but want to not touch the data and use array 1D.  
~ Another person supports not touching the data.

If additional attributes are needed, now is the time to add them.

~ Someone appreciates that.

\*\*Action Item - Steve - will do the TA.

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Someone would like to vote on CCB#24 (Reform unit definitions) next week. That gives people time to review it.

We might need extra time for next week.

Trent will sign up to do a presentation on who is doing what for collections and bundles.

We will meet again next week.

DDWG Notes 2024-08-08

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title: DDWG Notes 2024-08-08

layout: atypical

date: 2024-08-08

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The meeting was called to order by Joe Mafi at 09:31 PDT. Minutes from the meeting are interleaved with the agenda as distributed by e-mail earlier in the week. Real time minutes are in red; action items are in **bold red**.

Joe said he wanted to extend the meeting to 90 minutes; he apologized for not mentioning that when he distributed the agenda, but he would understand if some attendees needed to leave after 60 minutes. This is the last meeting before the build deadline, though e-votes after this meeting are possible.

Attendees: Alyssa Bailey, John Blalock, Kate Crombie, Bob Deen, Trent Hare, Ben Hirsch, Lyle Huber, Steve Hughes, Ron Joyner, Abigail Knight, Pat Lawton, Joe Mafi, Stef McLaughlin, Jordan Padams, Ethan Schaefer, Boris Semenov, Megan Seritan, Dick Simpson, and Matt Tiscareno.

Hi All,

We will have a DDWG telecon this **Thursday, August 8th at 9:30 PDT** (12:30 EDT, 9:30 MST in Arizona). We will discuss the following items:

1. [CCB#24](#) – Reform unit definitions – Please review the complete list of revised unit definitions ([UnitReform240806.pdf](#)). Please post any corrections on the GitHub page for the issue. Please be prepared to vote on this SCR.

Joe said there has been a lot of discussion in GitHub. He thinks there are only a couple outstanding questions; he asked Matt to explain. Matt said he had been convinced by some of the GitHub exchanges to make late modifications, and he has posted an updated set of definitions. Among other things, he has accepted Dick's suggestion to use the same format for all definitions. There is also a question of what constitutes a "byte"; is it always 8 bits? That has not always been the case; but chances are slim that any contemporary user would argue that a byte is 8 bits. This question was accepted as a lien; **language will be added to the SCR defining a byte as 8 bits**. Matt does not want to follow Dick's suggestion of putting some enumerated values in numerical size order — for example, listing zettawatts ( $10^{21}$  j/s) before yottawatts ( $10^{24}$  j/s) under Units\_of\_Power. Steve said the system only allows alphabetical ordering; to do anything else would require a separate SCR with non-trivial impact. **Another lien is removing an extraneous "space" discovered by Bob Deen**. Steve noted that no TA has been completed, but he doesn't see any likely problems. **If something comes up, it may be possible to resolve it through an e-vote.**

Votes:

Yes: Huber, Hughes, Schaefer, Hare, Mafi, Tiscareno, Drum, Bailey

No: Simpson

Abstain: none

Not Voting: IPDA

2. [CCB#42](#) – Create Array\_1D\_Spectrum – Please review and be ready to vote on this SCR.

The TA for this SCR says that a significant edit to the DPH is needed and no such revision has been proposed. Matt (the SCR author) did not receive notice of the TA; but his quick search indicated that Array\_2D\_Spectrum is mentioned only twice in the DPH (sections 6.2.2.1 and E.2.2.1). He verbally suggested what he might do — add parallel wording for Array\_1D-Spectrum. Ron thought that a paragraph explaining why a data provider might choose Array\_1D\_Spectrum over Array\_1D would be desirable; this was echoed by Lyle later. Matt said the class name is a signal to users about the type of data included. Array\_1D\_Spectrum will also provide hooks into some spectrum-related tool features. Joe thought that the DPH updates represent a minor lien and that a vote can proceed.

Ron mentioned that all changes need to be included in Requested Changes in an SCR — those are the things that will be added, removed, or modified in the implementation step. Steve agreed and added that he bases his TA on Requested Changes. Matt said he doesn't understand the difference between Proposed Solution and Requested Changes, but he felt this could be discussed another day. Dick said rushing things through is not good procedure.

MaX updated the Requested Changes to include the update mentioned above, and Ron added Schematron rules required to support this SCR. Both updates were performed in real-time, during the telecon, prior to the DDWG vote.

#### Votes:

Yes: Huber, Hughes, Schaefer, Hare, Bailey, Mafi, Tiscareno

No: none

Abstain: Simpson, Drum

Not Voting: IPDA

3. [CCB#29](#) – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product\_External logical\_identifiers. We will discuss R. Joyner's questions [posted 2 Aug 2024](#) and M. Tiscareno's responses [posted 6 Aug 2024](#). The questions and answers are interspersed in a Word document posted 6 Aug 2024 which I plan to use to guide the discussion.

This SCR has also prompted a lot of discussion in GitHub. Ron posed some questions and Matt has provided answers. Joe would like to get consensus from DDWG on how to proceed. Joe doesn't want to conduct multiple votes, so he guided the group through the questions, asking for comments and then objections. The results were as follows:

- a) Must the LID for every external product start with "urn:"? There were no objections.
- b) Can external products have LIDs with 4, 5, and/or 6 fields? There was consensus for allowing all three possibilities.
- c) Must all collections in an external bundle also be external? There seemed to be some sentiment for allowing mixes of external and internal collections, especially when the collections are secondary. Joe brought up the possibility of having internal documents referenced in external products. In the end the consensus seemed to favor requiring that all collections in an external bundle also be external.

d) Should there be a new optional attribute `document_product_type = 'External'` in `Product_Document`? Lyle was willing to withdraw this Requested Change on the assumption that documents could be handled like other products.

e) If `Bundle.bundle_type = 'External'` and `Member_Entry.reference_type = 'bundle_has_external_collection'`, must the `Bundle_Member_Entry.lid_reference` attribute LID have five fields? There were no objections.

f) Amend Schematron rules to be consistent with the above: there were no objections.

Dick had a general comment that we seem to be setting detailed standards for archival materials that aren't part of PDS; yes, a lot of active work is being done by PDS personnel as part of annexes, but annexes aren't PDS. Matt said this is something NASA has said it wants and others noted that our original specifications for `Product_External` were too loose.

Joe asked whether Ron could implement the Requested Changes in a reasonable way; Ron said he thought so. Ron asked that DDWG vote so that the SCR could go to CCB. Lyle recommended voting but asked that Ron's changes be implemented and that a TA be done before the SCR goes to CCB. There could be an e-vote after Ron makes his changes. Steve said there were no specifications in the original proposal; the revised SCR that goes to CCB must have specific and correct Requested Changes.

#### Votes:

Yes: Huber, Hughes, Schaefer, Hare, Bailey, Mafi, Tiscareno, Drum

No: None

Abstain: Simpson

Not Voting: IPDA

4. CCB#33 – Change cardinality of `File_Area_Inventory` to allow multiple inventory files for a single collection – We will continue the discussion of this SCR. Trent has a brief presentation with some example cases.

Trent made a brief presentation

([https://docs.google.com/presentation/d/1s1R5wADw9yD6W\\_WslizRw9kWIpfvFj05m1NEltd9CE/edit?usp=sharing](https://docs.google.com/presentation/d/1s1R5wADw9yD6W_WslizRw9kWIpfvFj05m1NEltd9CE/edit?usp=sharing)). CIS is not pressing for CCB#33 to be included in the next build; he wants this to be done correctly. He started by noting that there are differences between accumulating collections and “static” collections. Mars2020 has five collections that are updated with each delivery; each collection grows (to a very large size) but there are only five collections today. On the other hand, LROC delivers nine new collections each month; there are currently 212 LROC collections; at this rate more than 1000 collections will be added over 10 years. Matt asked whether updated products replace original products or are simply added; Trent said the process differs according to mission practice. The Catalina Sky Survey delivers a new, versioned collection product (including a CSV inventory file and XML label) at each delivery. The Inventory grows with each release, including all previously released collection members, with the newly released products added. They keep the old collection products on-line, so each newly posted version of the collection is larger than the last. Ethan asked about the advantages of validating a collection increment at each delivery as opposed to validating the entire collection at each

delivery. Bob said there are pros and cons. As a very simple example, new products may use record delimiters <LF> whereas old products may have records delimited by <CR><LF>; that makes concatenating Inventory files impossible without going inside the Inventory files and making edits.

Jordan (via chat) said keeping old collections is correct, but they can be moved off-line. Lyle said ATMOS is managing its data this way; over the past 30 years, only a very small number of people have asked for off-line data. Trent summarized by saying this is a good time to step back and review how we handle large data sets.

Mike believes we have an interface problem; SBN hopes DDWG can find a solution that can be recommended to MC. Stef said the Catalina Sky Survey pipeline only validates the increments that come in. Dick asked whether we have found any information about data systems outside PDS. Trent said he has only looked inside PDS. There seemed to be agreement that we need to look at large non-PDS system.

## DDWG Agenda

### Front-matter/What's new

1. Submitted to the CCB:
  - [CCB#3](#) – Adopt Semantic Versioning with version 2 transition (M. Drum)
  - [CCB#34](#) – Add terse\_description to the Investigation class (S. Hughes)
  - [CCB#38](#) – Add permissible value mrad/pixel to Units\_of\_Pixel\_Resolution\_Angular (M. Tiscareno)
  - [CCB#27](#) – DOI requires at least an author or editor
2. New issues in GitHub:
  - [CCB#43](#) – Repair Incorrectly Formed Enumerated Value for Units\_of\_Gmass (R. Simpson)
3. Ready for vote:
  - [CCB#24](#) – Reform unit definitions
  - [CCB#42](#) – Create Array\_1D\_Spectrum
4. *Built 15.0 freeze date: 8/13/2024 ([key dates here](#))*. The following SCRs are queued for implementation: [CCB#7](#), [CCB#10](#), [CCB#15](#), [CCB#16](#), [CCB#18](#), [CCB#19](#), [CCB#26](#).
5. Withdraw by author:
  - [CCB#25](#) – Reform Units\_of\_Misc, Units\_of\_None, and Units\_of\_Rates
    - a. The requested changes for this SCR have been subsumed within [CCB#24](#)

### Ready for Vote

#### Tier 1 issues

1. [CCB#13](#) – Ensure file\_name and directory\_path\_name adhere to SR

2. CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
3. CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product\_External logical\_identifiers
4. CCB#4 – Backwards Incompatibility policies (M. Drum)
  - a. Presentation linked here: Backwards Compatibility

Matt asked (via chat) why we discussed CCB#33 rather than CCB#4. Joe said we have not converged on a solution for CCB#4. He thought neither CCB#33 nor CCB#4 would be going into the next build. More could be gained by spending time during this meeting on CCB#33. Trent admitted that the original CCB#33 proposal to split Inventory files has gone to the wayside; there are bigger issues to deal with.

5. CCB#5 – Move to V.2.0.0 for June 2025 Release
6. CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year
7. CCB#11 – Add a Funding\_Information class to the Identification\_Area
8. CCB#32 – Add Host type to Observing\_System\_Component (M. Drum)
9. CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)
10. CCB#33 – Change cardinality of File\_Area\_Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)
11. CCB#24 – Reform unit definitions
  - a. Needs DDWG advice on definition formation rule
12. CCB#35 – Add Alias\_Index and Acronym\_Index to the Investigation class (S. Hughes)
13. CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)
14. CCB#37 – Add List\_Author, List\_Editor, and List\_Contributor to the Modification\_Detail class
15. CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)
16. CCB#40 – Change cardinality in Product\_Bundle to better support PDS3/4 hybrid bundles (R. Deen)
17. CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)
18. CCB#42 – Create Array\_1D\_Spectrum (M. Tiscareno)
19. CCB#28 – As a user, I want validate to allow delimited tables with whitespace- only numeric fields
20. CCB#12 – Document Nuances for Reusability of Generic LDD Classes/Attributes
21. CCB#21 (JIRA-CCB-367) – Provenance LDD Using PROV-DM (S. Hughes)
  - a. **Still looking for use cases**
22. 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
23. CCB#23 (JIRA-CCB-211) – XML/schema based files as archival data (J. Stone, M. Drum)

## 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: 8/22/2024

Confirmed.

Mike said he will be transitioning off DDWG and Ben Hirsch will be the voting member from SBN at the next meeting.

Dick will send a draft of these minutes to Joe for his review and corrections. Dick will then distribute the revised version to the DDWG list.

Adjourned 1057 PDT.

DDWG Notes 2024-08-22

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title: DDWG Notes 2024-08-22

layout: default

date: 2024-08-22

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August 22, 2024

Notes by Debra Kazden

Known Attendees: T. Hare, L. Huber, S. Hughes, D. Kazden, J. Mafi, S. McLaughlin, B. Semenov and R. Simpson  
Known Observers: A. Bailey, J. Blalock, B. Hirsch (attending for M. Drum), A. Knight (attending for E. Schaefer), P. Lawton, S. Loftin and M. Tiscareno

## ## DDWG Agenda

(Included in email sent August 20, from J.Mafi, Agenda for August 22, 2024)

We will have a DDWG telecon this Thursday, August 22nd at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). We are currently in the SCR freeze period. For the next DDWG telecon we will discuss the status of the SCRs that we were working prior to the freeze and review the current list of Tier 1 issues setting priorities for the next 6 months. Please be ready to discuss and advocate for issues that you proposed or on which you have worked

### Front-matter/What's new

#### 1) Submitted to the CCB:

- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum) – Returned
- CCB#24 – Reform unit definitions – Passed
- CCB#27 – DOI requires at least an author or editor – Returned
- CCB#29 – Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers
- CCB#38 – Add permissible value mrad/pixel to Units of Pixel Resolution Angular (M. Tiscareno) – Passed
- CCB#42 – Create Array 1D Spectrum – Passed

#### 2) New issues in GitHub:

- CCB#43 – Repair Incorrectly Formed Enumerated Value for Units of Gmass (R. Simpson)
- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD. (S. Hughes)
- CCB#45 – Add reference types values for \*\_to agency (S. Hughes)

#### 3) Ready for vote: (none)

#### 4) Built 15.0 freeze date: 8/13/2024. The following SCRs are queued for implementation:

CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#26.

#### 5) Withdraw by author:

CCB#34 – Add terse description to the Investigation class (S. Hughes)

\*\*(Discussed)\*\*

Ready for Vote

(None)

#### Tier 1 issues

- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
- CCB#4 – Backwards Incompatibility policies (M. Drum)

#### Presentation: Backwards Compatibility

- CCB#5 – Move to V.2.0.0 for June 2025 Release
- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year
- CCB#11 – Add a Funding Information class to the Identification Area
- CCB#32 – Add Host type to Observing System Component (M. Drum)
- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)
- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)
- CCB#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)
- CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)
- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)
- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)
- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)
- 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 (S. 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 (J. Stone, M. Drum)

**\*\*(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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 2024/09/05

#DDWG

## Front Matter

Today we are going to reaccess where we are with the different SCRs. We will re-examine priorities for the next six months as we work towards the next build. Thanks to everyone for all their hard work on this build. We made good progress. Everyone's efforts are appreciated for working so hard to move so much forward. The agenda has a list of SCRs that were submitted to the CCB.

CCB#3 (Adopt Semantic Versioning with version 2 transition) was returned. The concern was that it was generic. The CCB wants a specific proposal/plan to transition on a specific build. Not a lot of work for us to do. We will need to re-submit this when we are ready to go to 2.0. Still waiting on official feedback.

~ CCB#24 (Reform unit definitions) passed.

~ CCB#27 (DOI requires at least an author or editor) was returned over the implementation for the schema rules. We can work on it and re-submit it.

We haven't heard the final results for CCB#29 (Incorrect schematron rules for Bundle (type:External), Collection (type:External), and Product External logical identifiers).

~ Someone reported that it is sitting on Mia's desk and needs to be gotten moving.

~ Mia tested positive for Covid.

Someone reported sitting in on the CCB discussion for CCB#s 27 and 29. Thinks the CCB hoped we could make some small fixes and get them into the build. We need to hear from EN. The DDWG might want to move to weekly meetings earlier in the build cycle next time so that we don't rush things at the last minute.

~ Another person agrees. We can work on the timing. The freeze date is a week past. We might not be able to get them in this time.

~ The freeze date should stick. Jordan is willing to work with us. What has never been set is a date for official CCB feedback. We need to fix that. For these SCRs, will talk to Jordan. Hopes to get them in.

~ Someone is glad to hear that we might still be able to get them in.

~ Someone else is too. They weren't too hopeful.

~ There is still a lot for EN to do.

~ A lot of SCRs are queued for implementation this time. A lot of work. Concerned because Ron is out this week. Not sure how to get CCB#27 done without him before next week. We can try. Will work with him next week.

CCB#38 (Add permissible value mrad/pixel to Units of Pixel Resolution Angular) passed.

~ CCB#42 (Create Array 1D Spectrum) also passed.

There are three new issues to discuss. They are CCB#43 (Repair Incorrectly Formed Enumerated Value for Units of Gmass), CCB#44 (Issues caused by the failure to expose pds: attributes that are referenced in an LDD) and CCB#45 (Add reference types values for \*-to agency) One is from last time, but we didn't discuss it yet.

CCB#43 has been edited in jira. Wanted people to see how it effects CCB#4 (Backwards Incompatibility policies). Illustrates issues with backwards compatibility and deprecation. We need to think about it.

~ It wouldn't work to deprecate the old value.

~ The old one is a typo. Silly to keep it in the paragraph, but that's what CCB#4 is proposing.

CCB#44, brief introduction is that Rings had a product label with a bad kernel type. The issue was that we needed some sort of over-site. It not being caught has caused a lot of issues. Early on Jordan proposed validating the Geometry LDD. Jordan said to write a rule. That's done. That will check the

kernel types are valid in the Geometry LDD. We need to make sure that doesn't happen again. We can put in a warning if things are not exposed or referenced. Will put out a log file with warnings. So, there are two issues, even if there is a warning, will see multiple warning messages in the output. We need to decide if we should have a warning. And two, we should probably expose kernel type, but a diff of the schema will light up like a Christmas tree. We need DDWG discussion.

~ People need to read the SCR and understand it fully.

CCB#45 came from the editorial work group.

Going back to CCB#44 - someone really doesn't like the option of building around a mistake instead of fixing it. Not sure how many instances of incorrect kernel types there are, but we should fix them.

~ Since the early development of PDS4 there has always been a question about exposing attributes. No real answer - reference or redefine. Only in kernel type that this came up. That has to be exposed, but tend to agree. Don't think we ever made a formal decision.

~ Someone thought we did decide but that there were concerns. Don't remember them, but there were concerns with exposing things. Agrees, would rather address the issue then work around it. We need to understand the issues and consequences.

~ Lots of changes.

~ Think in LDDs we are reusing things from Common, like referencing attributes.

~ We discussed this in Tucson.

~ Currently the two exposed attributes are LID and references.

~ We will discuss this in an upcoming meeting.

Question: What was the incorrect kernel type value?

Answer: In Uranus occultation data set SPK was changed.

Another Question: This was not caught because there is no schematron for the Geometry LDD?

Answer: It should have been caught by the enumerated value list, but it's not exposed so it didn't trigger.

For CCB#45, the editorial work group requested this. They find it useful for landing pages and interface.

## # Tier 1 Issues

We are going to consider how to prioritize the tier one issues going forward. We will go over the list, starting from the bottom. Some of the authors may not be here.

### ## CCB#23 - XML/schema based files as archival data

Status is unclear.

\*\*Action Item - Ben\*\* will ask Mike.

### ## CCB#22 - Display Settings not required for images

Trent said he will work on this.

### ## CCB#21 - Provenance LDD Using PROV-DM

Still looking for use cases, but moving ahead. Want to provide provenance for derived data products.

Have one Voyager use case, others might have more. Need to test it and make it available. The SCR is basically creating an LDD and testing it. Been in a holding pattern. Need test cases.

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

No update.

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

Author is not here. PPI had concerns on how this folds into the DSV specification.

~ Rings is concerned too.

## CCB#41 - Create a way for classes or attributes to be exposed to other LDDs but not to data providers

Matt said that he is willing to lead a discussion on this at a future meeting.

Question: What's the priority? Any relation to CCB#44 (Issues caused by the failure to expose pds: attributes that are referenced in an LDD)?

Answer: Need to refresh memory, but think it's just an LDD design theory issue to do with attributes in LDDs and cases where exposing them might give more freedom than we meant.

## CCB#40 - Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles

There has been a good deal of discussion on this already. We can continue to work this one. Hope to vote it up or down in the near future.

Question: Can someone explain what a hybrid bundle is?

Answer: A bundle with PDS3 and PDS4 mixed.

~ Someone can't see how that's allowed.

~ It must make validate unhappy.

~ Someone else thought that is how GEO is doing their migrations. Merged.

~ It is.

~ It's how ATMOS did it too.

~ But no one asked for this.

~ No problem with overlay, but it has to validate in both systems.

~ Someone thinks this is un-needed.

~ Another person hasn't discussed this with Bob or Trent (not here), but feels this is unnecessary. Will try to understand the motivation here.

## CCB#39 - Fixed problem where LDDTool does not include all rules from IngestLDD

Someone thought this was resolved. The issue was in development of LDDTool if two rules had the same content would merge them. Thinks this should be withdrawn.

~ Someone else said we should reach out to Jessie to see if it's okay to withdraw this.

\*\*Action Item - Joe\*\* will check in with Jessie.

## CCB#37 - Add List Author, List Editor, and List Contributor to the Modification Detail class, CCB#36 -

Add Mission Phase to the Investigation class and CCB#35 - Add Alias Index and Acronym Index to the Investigation class

Steve said that he can deal with CCB#s 35, 36 and 37. They are all changes to investigation context products from EN and the editorial work group. Believes CCB#37 had a strong recommendation from Anne to have a text field. Will prototype. For CCB#36, mission phase, a version is out. For CCB#35, index, same thing. These three have all been modified and are being worked on. SCRs will be updated. Will probably come back to the DDWG soon.  
~ Good.

## CCB#33 - Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

There was a lot of discussion on this one. We want to keep the momentum and move forward.  
~ Someone thought there were two issues here and would maybe split this into two SCRs.  
~ Not everyone recalls that. Author not here. Need to wait for them. They might edit the SCR.  
~ Someone else reported that they know the authors are discussing this. They are trying to figure it out. It might change, but they are not sure of the details.  
~ It would also be helpful to hear from Jordan on this, regarding validate.  
~ Right.  
~ Also, if previous version has a checksum that hasn't changed, maybe validate doesn't have to run again.  
~ We will hold off on discussing this until we hear more.

## CCB#31 - Ensure that dictionary versions are specified in labels

This was discussed after the SCR was filed. Unclear how version of LDD is specified and if it's okay to be in the header. We could discuss and probably finish this.

## CCB#32 - Add Host type to Observing System Component

Author is not here.  
~ There was a good discussion a few months back.

Question: Any updates?  
Answer: \*\*Action Item - Ben\*\* will ping Mike for updates.

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

This was submitted by Jordan. Marked urgent. Unclear if there have been any updates. We should prioritize this.

## CCB#6 - Adopt official policy and procedures to evaluate the need for a major version every year

We haven't really worked on this much. Early discussion sense was that we didn't need a policy.

Question: Any comments or different takes?  
Answer: The wording in CCB#3 takes care of this. It should be withdrawn.

~ \*\*Action Item - Joe\*\* will follow up with Mike on this.

#### ## CCB#5 - Move to V.2.0.0 for June 2025 Release

Someone thinks this has been overcome by recent discussions. We will need an SCR to move to version 2.0, but we will need a specific reason.

~ We can keep it and amend it with a new date when we have one.

#### ## CCB#4 - Backwards Incompatibility policies

A lot of good discussion. Want to keep momentum. Still a lot of work to do to find a solution.

#### ## CCB#20 - Instrument Package Context Products

There was a lot of discussion early on. Some issues uncovered created a need for a hierarchy for instrument products that wasn't explicitly defined.

Question: Thoughts?

Answer: This pre-dates the editorial work group. They might have input that would help.

~ Good idea. We can discuss this with them.

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

There has been some discussion on this. There were some issues to resolve. We want to try to move forward.

~ The author is not here. We have different views on how to solve this. Has to do with forward slashes. Won't be hard to finish if we can get everyone on the same page.

(Discussion of data type - note taker didn't catch it)

We should fix the file types.

~ Someone agrees. Fix or remove. Should be fixed.

~ Someone else agrees, but taking things out is non-backwards compatible. It's complicated.

~ We should check that. Use the registry.

It seems like we can move forward on this one.

---

Question: Are there other SCRs that we didn't discuss that people are concerned about?

Answer: (Silence)

~ We will start working these issues in future meetings.

Our next meeting will be September 5.

~ The meeting after that would be September 19, but neither chair nor note-taker can attend. Will have the next meeting October 3.

\*\*Action Item - Joe\*\* will ask Vivian to send out an updated calendar.



DDWG Notes 2024-09-05

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title: DDWG Notes 2024-09-05

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date: 2024-09-05

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September 5, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey\\*, J. Blalock\\*, T. Hare, B. Hirsch\\*, L. Huber\\*, R. Joyner\\*, D. Kahan\\*, D. Kazden, A. Knight, P. Lawton, T. Lim\\*, S. Loftin, J. Mafi\\*, S. McLaughlin, E. Schaefer\\*, B. Semenov and M. Seritan\\* (\\*'s indicate people who voted during this meeting)

## ## DDWG Agenda

(Included in email sent September 3, from J.Mafi, Agenda for September 5, 2024)

We will have a DDWG telecon this Thursday, September 5th at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). We will discuss the following items:

1) CCB#43 – Repair Incorrectly Formed Enumerated Value for Units of Gmass (R. Simpson):

This appears to be a relatively simple SCR (though its implementation would be backward incompatible). I would like to discuss and vote on it (assuming that it can be TAed in time for the meeting).

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

This SCR was returned by the CCB with some comments. A Word document along with a sample Schematron and label have been posted on GitHub. There are two questions that we need to resolve in order to respond the CCB:

- The original DDWG Schematron allowed for both List Author/Editor and author/editor list to be used in the same label. Was this intentional? Would the DDWG support an additional rule requiring that just one or the other be used?
- The CCB produced Schematron omits author/editor list in the error message if no author/editor information is provided and a DOI is given. Does the DDWG agree that the error message should only mention List Author/Editor? If so, should the footnotes mentioning author/editor list be omitted from the SR and DPH as well?

Note that the telecon following this one (19 Sep 2024) will be canceled (a cancellation message will be sent out following this week's telecon). The next meeting will be held 3 Oct 2024.

## Front-matter/What's new

1) Submitted to the CCB:

- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum) – Returned
- CCB#27 – DOI requires at least an author or editor – Returned

2) New issues in GitHub: (none)

3) Ready for vote:

CCB#43 – Repair Incorrectly Formed Enumerated Value for Units of Gmass (R. Simpson)

4) Built 15.0 freeze date: 8/13/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#29, CCB#38, CCB#42.

5) Withdraw by author: (none)

\*\*(Discussed)\*\*

Ready for Vote

\*\*(Voted on CCB#s 43 and 27)\*\*

#### Tier 1 issues

- CCB#13 – Ensure file name and directory path name adhere to SR
  - CCB#20 (JIRA-CCB-358) – Instrument Package Context Products
  - CCB#4 – Backwards Incompatibility policies (M. Drum)
- Presentation: Backwards Compatibility
- CCB#5 – Move to V.2.0.0 for June 2025 Release
  - CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year
  - CCB#11 – Add a Funding Information class to the Identification Area
  - CCB#32 – Add Host type to Observing System Component (M. Drum)
  - CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)
  - CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)
  - CCB#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)
  - CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)
  - CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
  - CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)
  - CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)
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  - CCB#43 – Repair Incorrectly Formed Enumerated Value for Units of Gmass (R. Simpson)
  - CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD. (S. Hughes)
  - CCB#45 – Add reference types values for \*-to-agency (S. Hughes)
  - 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 (S. 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 (J. Stone, M. 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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>
- Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 10/3/2024

# DDWG

## Front Matter

A couple of SCRs have been returned to us - CCB#s 3 and 27.

For CCB#3 (Adopt Semantic Versioning with version 2 transition) there is no more for us to do until we decide we are ready to move forward for version 2.0.

We will discuss CCB#27 (DOI requires at least an author or editor) today.

## Ready for a Vote

## CCB#43 - Repair Incorrectly Formed Enumerated Value for Units of Gmass

The enumerated value for units of Gmass is missing the slash in the middle of the units string. Pretty straight forward change. The question is how important it is. It would be a non-backwards compatible change. Under the rules of CCB#4, which we haven't agreed upon, we would add the new value and deprecate the old incorrect value and it would stay for a year. Seems silly, but it could be a good test case. It is the direction we are proposing going.

Question: Does this set a precedent? How does it effect CCB#4?

Answer: Maybe we need to decide about CCB#4 before this gets implemented.

~ Today we can vote without the question of how it gets implemented, just vote up or down. We will work on CCB#4 soon. We can use whatever approach in that to implement this.

Question: Do we have a preference about the exponent?

Answer: SR directs to use positive exponent.

Question: Any more questions?

Answer: (Silence)

We will vote. There is no TA yet, so if something comes up we may need to come back to this again.

\*\*The Vote for CCB#43:

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes

NAIF - Yes

PPI - Yes

RMS - Yes

RS - Yes

SBN - Yes\*\*

Passed. Will get a TA and move forward.

# Tier 1 issues

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

This was returned to us by the CCB over implementation concerns with schematron. Ron needs direction on how to move forward. Some issues to check to see if they were intentional and if the CCB recommended changes are agreeable. The first issue (see the agenda for a list of issues) is allowed use of list author/editor with author/editor list. You could have all four, used in any combination. The CCB recommends we restrict to choosing only one approach. There's a complication with the tool for generating DOIs - it expects author/editor list, but the real question is if it was intentional to allow both and if it would be okay to restrict that.

Question: Any comments?

Answer: (Silence)

~ Someone proposes we vote on accepting the CCB recommended rule.

\*\*The Vote - do we want to add a schematron rule that would restrict to one or the other?

ATMOS - Yes

EN - Abstain

GEO - Yes

IMG - Yes

IPDA - Yes

NAIF - Abstain

PPI - Yes

Rings - Abstain

RS - Yes

SBN - Yes\*\*

That has enough yes votes to pass.

The other issue is the error message. Currently it only lists list author/editor, but the SR has a footnote that lists author/editor list. Originally there were advocates to keep both in documentation, and by extension, in error list too. A reason to continue to document deprecated values is that they are still allowed.

~ The footnote was posted in chat for people to look at (Not captured in these notes)

Question: Where? The DPH? SR?

Answer: Both. Could have different answers.

~ Someone's personal feeling is we should guide users to list author/editor, but some DPs may want to continue to use author/editor list. New DPs should be encouraged to use the new ones.

If there are no more comments we will vote to remove from the error message and separately to remove from the documents.

~ (No comments)

~ The Vote is to adopt the CCB recommendation to remove mention of author/editor list in the error

message.

Question: Remove for error message to say it's deprecated?

Answer: Wouldn't mention it at all.

~ Unclear what this vote is.

~ Someone re-read the agenda and said it seems okay and that schematron should say you need list author/editor if neither is there. Seems okay.

~ We are voting to omit author/editor list from the error if there is no information there.

**\*\*The Vote:**

ATMOS - Yes

EN - Abstain

ING - Yes

IPDA - Abstain

NAIF - Abstain

PPI - Yes

Rings - Abstain

RS - Yes

SBN - Yes\*\*

The yes answers outnumber the abstains.

The second question is if the omission of the deprecated value should be omitted from the documentation.

~ Basically, the SR currently has a footnote that says you can also use author/editor list. The question is if that should be omitted.

Question: What is the harm in keeping this?

Answer: It would mean that DPs would see it even though we want them to move to list author/editor in most circumstances. We do indicate it is deprecated, but it creates ambiguity. There is also a question that comes in from CCB#4 (Backwards Incompatibility policies) about how to handle the documentation.

~ This should be considered with what we just voted on.

~ Someone agrees.

**\*\*The Vote is whether to remove mention of author/editor list from the SR in the footnote:**

ATMOS - Yes

EN - No

GEO - No

IMG - No

IPDA - No

NAIF - Abstain

PPI - Yes

Rings - Abstain

RS - Yes

SBN - Abstain\*\*

That did not pass. Footnote stays in.

Thanks to everyone for all their votes.

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That's all that was on the agenda for today.

EN would like to capture the votes as part of the DDWG assessment.

**\*\* (Action Item - Joe will take care of that after the meeting.) \*\***

The TA for CCB#43 was done while we were talking.

~ Back to CCB#43...

~ It's pretty straightforward. Don't think there's any reason to re-vote. Will be submitted to the CCB.

Question: Any last issues?

Answer: (Silence)

~ We will finish early today. No meeting in two weeks. Vivian will send a notice.

Next meeting October 3, 2024

DDWG Notes 2024-10-03

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title: DDWG Notes 2024-10-03

layout: default

date: 2024-10-03

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October 3, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey\\*, J. Blalock\\*, B. Hirsch\\*, L. Huber\\*, S. Hughes\\*, R. Joyner, D. Kahan\\*, D. Kazden, A. Knight, T. Lim\\*, J. Mafi\\*, S. McLaughlin, E. Schaefer\\*, M. Seritan and M. Tiscareno\\* (\\*'s indicate people who voted during this meeting)

## ## DDWG Agenda

(Included in email sent October 2, from J.Mafi, Agenda for October 3, 2024)

After a brief hiatus we will have a DDWG telecon this Thursday, October 3rd at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). We will discuss the following items:

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

The Schematron for this SCR has been updated to incorporate the following changes requested by the CCB and approved by the DDWG:

- The error message produced when a DOI is provided, but no author or editor information is provided now only mentions the List Author/Editor classes. It omits mention of the deprecated author/editor list attributes.
- A new Schematron rule has been added which issues an error message if both the List Author/Editor classes and author/editor list attributes are included in the same label.

Please review the updated materials and test labels and be ready to vote on sending this SCR back to the CCB.

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

This SCR has been revised to request that the data type for directory path name and file name be changed from ASCII Short String Collapsed to use the ASCII Directory Path Name and ASCII File Name respectively. Please review the changes and be ready to vote on this SCR.

### 3) CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno):

A number of issues and questions are discussed in the comments for this SCR. Please review these and be ready to continue the discussion.

## Front-matter/What's new

### 1) Submitted to the CCB:

- CCB#43 – Repair Incorrectly Formed Enumerated Value for Units of Gmass (R. Simpson) – Approved
- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum) – Returned

### 2) New issues in GitHub:

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection (Tiscareno)

### 3) Ready for vote:

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

4) Built 15.0 beta testing: 10/24/2024 - 11/14/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#29, CCB#38, CCB#42.

5) Withdraw by author:

\*\*(Discussed - Voted on CCB#s 27 and 47)\*\*

Ready for Vote

(none)

Tier 1 issues

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#4 – Backwards Incompatibility policies (M. Drum)

Presentation: Backwards Compatibility

- CCB#5 – Move to V.2.0.0 for June 2025 Release

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

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

- CCB#32 – Add Host type to Observing System Component (M. Drum)

- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)

- CCB#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)

- CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)

- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)

- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD. (S. Hughes)

- CCB#45 – Add reference types values for \*-to agency (S. Hughes)

- 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 (S. 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 (J. Stone, M. 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

\*\*(No Discussion)\*\*

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 **\*\*(No Discussion)\*\***

Historical links:

- Export of history: [https://urldefense.us/v3/\\_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data\\_!!PvBDto6Hs4WbVuu7!LlrRiiXRU9yQDTkq4qjmJq3iZQwXMKOdPJLboy4XN5JbizYSp0LSiaXcdFkZjKKyH\\_NCdSpAQ\\_RSp26x-0ajcqV8gNp4jRG1\\$](https://urldefense.us/v3/_https://github.com/NASA-PDS/PDS4-CCB/tree/main/data_!!PvBDto6Hs4WbVuu7!LlrRiiXRU9yQDTkq4qjmJq3iZQwXMKOdPJLboy4XN5JbizYSp0LSiaXcdFkZjKKyH_NCdSpAQ_RSp26x-0ajcqV8gNp4jRG1$)  
- Backup: [https://urldefense.us/v3/\\_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues\\_!!PvBDto6Hs4WbVuu7!LlrRiiXRU9yQDTkq4qjmJq3iZQwXMKOdPJLboy4XN5JbizYSp0LSiaXcdFkZjKKyH\\_NCdSpAQ\\_RSp26x-0ajcqV8gCoy4ATS\\$](https://urldefense.us/v3/_https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues_!!PvBDto6Hs4WbVuu7!LlrRiiXRU9yQDTkq4qjmJq3iZQwXMKOdPJLboy4XN5JbizYSp0LSiaXcdFkZjKKyH_NCdSpAQ_RSp26x-0ajcqV8gCoy4ATS$) (limited seats)

Next meeting: 10/17/2024

# DDWG

## Front Matter

There are quite a few things on the agenda and things keep getting added. For starters, there are two new SCRs. Only one is listed, but another was added yesterday - a request to vote on a new permissible value.

##CCB#46 - Disallow multiple versions of the same LID from occurring in a single collection

Already been some discussion in other SCRs. The issue is that it's been mentioned that some collections have multiple versions of collections with products with the same LID. There's some ambiguity. The proposal is that validate would recognize the issue and throw an error when multiple versions of products with identical LIDs in a collection. We will discuss this in the weeks to come.

## CCB#47 - Add permissible value  $W/cm^2/sr/\mu m$  to Units of Spectral Radiance

This is a new permissible value. There were messages this week that indicated it might not be too late to get permissible values into the build. This is necessary for Cassini CIRS. New values have to be added explicitly every time.

~ A simple change, but not easy to do quickly. We will try to get to this today. It seems pretty straight forward.

CCB#s 13 and 27 have both been updated to accomplish the changes requested by the CCB.

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

Question: Has everyone had a chance to look at the changes?

Answer: (Silence)

**\*\*The Vote to approve the changes and send to the CCB for their review and vote:**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Yes  
NAIF - Yes  
PPI - Yes  
Rings - Yes  
RS - Yes  
SBN - Yes.\*\*

This passed again.

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

This SCR is to add some requirements that try to force file names to adhere to the SR. The change is to use ASCII file types to restrict contents of file names.

Question: Any comments?

Answer: (Silence)

Another Question: There were example schematron and test labels. Did anyone look at this?

Answer: (Silence)

~ Someone is confused. Last time people wanted to change to ASCII path name, but not everyone wanted to do that, and now we are. Unclear about what's happening here.

Question: Were there any changes to the two data types?

Answer: We don't talk about these enough so the brain cells stop. The Requested Changes says adopt and approve and change directory path name from and to and test. Changes were made.

~ Someone doesn't remember what the objections were to the data types.

~ Another person is reading it and says it looks like it was where the slashes were.

~ In late May or June, some people made suggestions and then EN made changes, but it is unclear what they were. It is a lot to look at. Can't understand why it is connected to CCB#27 or why it is urgent.

~ It is not connected to CCB#27, and if it is not ready it is not ready.

It has been ready a long time.

~ We can try to look at the questions and see if they have been addressed.

~ EN's last comment was March 26. There are eight more comments after that. Un-responded to, so the ball is in EN's court.

Question: Have all the concerns been addressed? Unclear that this is ready.

Answer: There has been a ton of changes. Believe all comments have been addressed.

~ There were a lot of comments around June 26. Let's not vote today. Let's go through the comments and just add a comment about how they were addressed. We can evote if everything has been addressed. If it's more complicated then we can have a discussion.

If we don't vote today it won't be in the build. It is way past the deadline. There were loud voices about getting that and CCB#27 into this build.

~ People are surprised it's not too late already. Seems like we are working in a black box for this.

~ Someone couldn't support this today. For GitHub we need to let people know when changes are made. There are no alerts generated. We need a way to know that there is something new in comments.

~ Noted.

**\*\*Action Item - Joe\*\*** will go through the comments.

~ We will evote or vote at a future telecon.

**## CCB#47 - Add permissible value  $W/cm^2/sr/\mu m$  to Units of Spectral Radiance**

Question: Are there any questions or concerns on CCB#47?

Answer: (Silence)

Another Question: Any objections to voting now?

Answer: There are two requirements before a vote - a TA and test cases.

Another Question: A TA is required for a permissible value?

Another Question: That is a lot of hoops for something this simple. Does this need to go through the full process?

~ That's a fair question.

Answer: It also needs test cases. There have been big discussions about it because of all the recent push back from the CCB about what implementation will look like.

We will discuss that at the F2F. The CCB would like to see test implementation in schema and schematron. Test products and a write up of the test cases. It's not something we have really done every time. We need to have a wider discussion with the DDWG, CCB and EN. Concerned that a lot of this will fall on Ron and Steve.

~ Someone discussed this with Jordan. We agree we need a better test protocol. He thought we needed a pre-approval process before EN starts putting resources in, but common sense for this one would be to move forward.

Someone is fine with that. The discussion was in general. There is no protocol set yet, so we are still operating on the same basis we always have. Can see the future value, but right now we are still operating under no specific protocol.

Question: Are there any objections to voting now?

Answer: (Silence)

~ Thank you to EN for bringing this up. We need to have a wider discussion about submitting SCRs.

~ In addition to all that, someone thought there was a different protocol for adding permissible values. Maybe just that the CCB doesn't object.

~ The CCB definitely treats them different.

Question: Any objection to voting?

Answer: (Silence)

**\*\*The Vote for CCB#47:**

ATMOS - Yes

EN - Yes\*\* (Voted yes, but commented that is puts EN between a rock and a hard place. Will create a test case for this. No protocol yet, but getting very strong feedback from the CCB.) **\*\*GEO - Yes IMG - Yes IPDA - Yes NAIF - Yes PPI - Yes Rings - Yes RS - Yes SBN - Yes\*\***

We need a wider discussion on protocols going forward.

---

## ## CCB#20 - Instrument Package Context Products

Question: Another high priority SCR from Jordan is CCB#20. Can we squeeze that in?

Answer: Someone discussed that with Anne last week. Still brain storming.

~ CCB#20 is not happening today.

~ Someone agrees. We couldn't vote on it today.

~ EN is looking for a discussion, not a vote.

~ Discussions with Anne are happening.

Question: Does anyone object to discussing CCB#20?

Answer: (Silence)

~ Someone brought up CCB#41 (Create a way for classes or attributes to be exposed to other LDDs but not to data providers), but we are at an impasse until EN can teach us what happens at the back end. It will be complicated.

For CCB#20, there are groupings of instruments that have reality in understanding - we want to be able to talk about them in labels. In New Horizons, MVIC and LEESA is an instrument package called RALPH. There's another instrument package on Rosetta. Multiple layers. We want to make room for them all and have a hierarchy. We're trying to think of ways to preserve that. (Shared screen to show a sample label for New Horizons.) The example expands on Mike Drum's examples. His idea was instrument host to child instrument host type, with internal reference instrument to instrument host. One actual example. A new example, someone believes, shows what Anne was suggesting. Spacecraft is the instrument host and a new type would be created, type instrument group. A little cleaner. Just another possible way to solve it.

At the bottom of the SCR, someone else spent time constructing a history and found that the DDWG had approved and voted on this. Couldn't find the CCB vote in the CCB notes.

~ A person believes they decided not to approve it.

~ This might have gone up to the CCB while Mike was the chair.

~ If the CCB rejected it, it would be handy to have a list of reasons. Can't find that in the notes. It's why a history was put together. Sort of an interesting one. Not sure where we are. Would like to have a new vote.

Question: Are CCB#20 and CCB#32 (Add Host type to Observing System Component) dependent?

Answer: Yes. CCB#32 was added as a supplement to CCB#20. The first example included Mike's solution. They are intertwined.

Question: Would instrument group replace instrument package? And can it be nested?

Answer: Yes. More general. Anne suggested it be a type of context product.

~ Someone thought the original instrument package was suggested, and then decided it could be a type of host. Went full circle.

Another Question: The example only had one level. Do you know how we would represent the nesting?

Answer: Need to ask EN. There are still some open questions.

Another thing - we've got things currently, context products for instruments that would really be instrument groups, so a bit of a backwards incompatibility issue for PPI. Will be a wrinkle in implementation.

~ Like list author with backwards incompatibility.

- ~ Not sure how backwards incompatible this would really be if all we had was instrument host and instrument, not sure this would disrupt that.
- ~ Thinking of Cassini MIMI. We currently use MIMI as the instrument.
- ~ This would offer new functionality.
- ~ If we are just adding new types and the MIMI context product doesn't go away, okay.

Someone found a note from June 25 asking if anyone has the action to work on this.

- ~ Working on it now.
- ~ Jordan poked us on this.
- ~ It was mentioned that someone wants to see the model represent what's physically going on. I always thought that should be in context products and done with links. Two issues - hierarchy with pointers up and down. If information is in context products that's what the system folks will use. Concerned about spaghetti code. The other thing is that we are trying to duplicate the model in the observing area. Need to discuss this.
- ~ It's not so much the physical as the conceptual reality that we are trying to make room for. Think we don't want to require data users to look at the context products to know what's going on.
- ~ Conceptual versus physical is a good point. Regarding the observing system, if it just hints at the structure, we don't have to replicate it. The problem is if we change the context product we have to change the observing system and it becomes confusing.

Question: Any other comments?

Answer: (Silence)

---

Our time is up. We will discuss this and CCB#41 (Create a way for classes or attributes to be exposed to other LDDs but not to data providers) in future meetings.

We should start meeting more frequently. There is a lot to discuss.

- ~ And the holidays will clobber us.

Question: Any objection to meeting weekly?

Answer: Next week is DPS.

- ~ Next meeting October 17. Then we will meet October 24 and 31.

## DDWG Notes 2024-10-17

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title: DDWG Notes 2024-10-17

layout: default

date: 2024-10-17

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October 17, 2024

Notes by Debra Kazden

Known Attendees: J. Blalock, T. Hare, B. Hirsch, L. Huber, S. Hughes, R. Joyner, D. Kazden, A. Knight, P. Lawton, J. Mafi, S. McLaughlin, E. Schaefer, B. Semenov, M. Seritan and M. Tiscareno (\\*'s indicate people who voted during this meeting - if applicable)

### ## DDWG Agenda

(Included in email sent October 16, from J.Mafi, Agenda for October 17, 2024)

We will have a DDWG telecon this Thursday, October 17th at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona).

We will discuss the following items:

- CCB#4 – Backwards Incompatibility policies (M. Drum): A revised version of the Proposed Solution document has been posted. Please review and be prepared to discuss, and if there are no major changes, to vote.
- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno): A number of issues and questions are discussed in the comments for this SCR. Please review these and be ready to continue the discussion.

Note that since there are quite a few important issues currently under consideration, and a number of weeks that we will not be able to meet due to holidays and other scheduling conflicts, it has been suggested that we meet weekly for the rest of October and the first weeks of November. The proposed that we hold to the following meeting schedule from now through the end of the year:

Oct 17 – DDWG telecon (regularly scheduled) Oct 24 – DDWG telecon (bonus) Oct 31 – DDWG telecon (regularly scheduled) Nov 07 – DDWG telecon (bonus) Nov 14 – DDWG telecon (regularly scheduled) Nov 21 – No meeting (PDSMC Face-to-Face) Nov 28 – DDWG telecon (regularly scheduled) Dec 05 – No meeting Dec 12 – DDWG telecon (regularly scheduled); AGU week Dec 19 – DDWG telecon\* (bonus) Dec 26 – No meeting Jan 02 – No meeting Jan 09 – DDWG telecon (regularly scheduled)

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

### Front-matter/What's new

#### 1) Submitted to the CCB:

- CCB#27 – DOI requires at least an author or editor
- CCB#47 – Add permissible value  $W/cm^{**2}/sr/\mu m$  to Units of Spectral Radiance

#### 2) New issues in GitHub:

- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate

#### 3) Ready for vote: (None)

4) Built 15.0 beta testing: 10/24/2024 - 11/14/2024 (key dates here). The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#29, CCB#38, CCB#42, CCB#43.

5) Withdraw by author: (None)

\*\*(Discussed)\*\*

Ready for Vote

(None)

Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum) The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#4 – Backwards Incompatibility policies (M. Drum)

Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection (Tiscareno)

- CCB#5 – Move to V.2.0.0 for June 2025 Release

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

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

- CCB#32 – Add Host type to Observing System Component (M. Drum)

- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)

- CCB#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)

- CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)

- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)

- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD. (S. Hughes)

- CCB#45 – Add reference types values for \* to agency (S. Hughes)

- 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 (S. 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 (J. Stone, M. Drum)

\*\*(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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 10/24/2024

# DDWG

## Front Matter

We won't be meeting November 28 - Thanksgiving. We also won't be meeting December 5 so Joe can do AGU prep. There will be a meeting AGU week. People should let Joe know if there are problems moving forward.

There is a new SCR from Trent - CCB#48 (Add JP2 as an allowed extension in the PDS tool Validate).

~ This one is not a big deal. Should be a quick update to allow the file extension JP2 and to allow it to pass validation without a warning. There are some document changes that will need to be made, but no change to the IM. Basically a validate update.

~ Someone said this should be in the SR, but it is not a new data type.

We will vote when everyone has had a chance to look at this.

There is no news on the SCRs that were sent back to the CCB. Hopefully we will hear soon.

Today we will discuss CCB#s 4 and 41.

# Tier 1 Issues

## CCB#4 - Backwards Incompatibility policies

The documents for CCB#4 in GitHub have been updated. And there are new comments.

Question: Any concerns?

Answer: Someone added more comments as this meeting was starting.

~ We need to put stuff in the Proposed Solution because otherwise it doesn't look like anything has changed.

We are not ready to vote, but we should make sure we're good and find out what other issues there are, where people stand. Please look at this if you haven't yet and make comments so we can get this updated to something official we can approve or poke at.

~ Someone would like to discuss the comments.

(Screen shared to see comments) There is a question about documentation that needs to be updated.



Language should be clarified.

Question: What was actually meant about the comma?

Answer: Remove the comma.

~ Someone just did it in real-time. Will put that in the Requested Changes. Already fixed the link. The question is what the additional changes are.

~ Foresee going into the content and highlighting what should be removed. Sort of tricky. Might need to highlight and provide links. Basically, the highlighted content is proposed to be removed as we make the backwards incompatible change. Unsure if that answered the question.

~ Unclear what changes to the documents.

~ Not sure we need to change the LDD. Online search is versioned. Think it would be updated automatically.

Question to Steve: Does that happen automatically?

Another Question and Answer: The online dictionary? That's straight forward, generated at the same time as other online documents. But we have to do common and the LDDs at the end from the ontology.

Another Question: So if we want to not include deprecated items we need to specify that, because they are in the ontology?

Answer: Yes. That will be on EN's part. Not part of the model.

~ It will happen in Protegee. Deprecated items will be removed.

~ Someone is concerned we are over specifying.

~ Another person agrees. If the team says something shouldn't be in the online documents EN will make sure that's what happens.

~ So we don't have to specify specifically.

~ If there is a document we want them in let EN know.

It is unclear why we need an SCR a year later. Validate will give an error instead of a warning.

~ It means the deprecated items come out of schema and schematron. The reason for doing this is to be clear. Very specific so when we ask EN to implement SCRs to explicitly say what needs to come out of the current version. We've been overly vague in the past. This might be overly specific. That's the intent. Also, don't think we want things to automatically come out of the IM in a year. There might be reasons to leave things awhile.

~ It makes sense for the DDWG to be informed. We might want to say it doesn't require a vote. We can delay the steps if there is some reason, but we don't want that to be the default.

~ We don't want to re-adjudicate, but we also need to be careful about what's being removed. Trying to find a good medium between over and under specifying.

Someone has always assumed there is a champion for each SCR and also assumed they check the SCR as changes are made. For wholesale removal we have to have the team make sure we do things right.

~ Yes, but we have gotten push back from the CCB that there are not enough test cases when we push things through, so this is preemptive.

~ We need to be cognizant that EN is being told that we need to put more tests in. We need those test cases and regression tests for every build. Tests to make sure what should be removed is... (interrupted)

~ At the F2F we will have a discussion about what needs to be included with SCRs and what changes need to be made, tests cases and other things we've left in the past. We can try to provide more materials up front. We've never had guidelines on what SCRs need to include. It will be more work for us and for EN to verify. We will have that discussion at the F2F.

Question: Other comments on this?

Answer: (Silence)

~ Unclear if we want to go through the comments now.

~ Yes. Someone wants to know if people agree and if this can be the version for the Proposed Changes.  
(Screen sharing to show the SCR)

~ Wording in section 4 (4ai etc) was added. The word "validate" was exchanged with "pds tools".  
Updated in real-time.

Question: Is this okay?

Another Question: Is this from EN? Generated by EN? Sounds like more work for EN.

~ Someone has lost the context.

~ The long deprecated list.

~ Someone is confident that Steve can take on the task.

~ Someone else agrees, we will count on Ron.

~ Neither of them can retire.

~ Another person has misunderstood something.

Then that was unclear. Thought the DDWG would give guidance to EN on what to remove.

~ Someone thought that would be done in the original SCR.

~ Yes, but think we should be intentional about things being removed.

~ Someone else agrees.

~ Another person agrees. If it's an automatic process, the DDWG should start the process.

~ The SCR says we will go to version 2.0 and these are the changes - a whole package of changes.

~ Right, and future SCRs should be in the queue and be triggered by the DDWG chair.

4ai has been updated.

Question: Haven't looked at the DDWG charter. Are any changes necessary?

Answer: Someone thinks the DDWG can accept.

~ (Someone else said something about permissible values.) ~ Bug fixes too. The CCB doesn't vote on those. Just given a chance to object.

~ Someone thought there is something so the DDWG can accept.

~ Someone else thinks the DDWG votes in all cases.

~ But the DDWG already voted.

~ The charter might need updates. It might be reasonable to handle this the way the CCB handles permissible values and bug fixes.

Question: Is the language for 4ai okay? We can look at the charter.

~ Not everyone knows how to find the charter.

~ It might be on the MC google drive.

~ There are also some changes suggested in section 3 for clarity.

~ Someone likes this wording better.

~ Changes to section 3, parts A, B and C.

~ Someone thinks that's a good addition. Not something we have done, but it lets people know that something is coming.

~ It was updated in real-time. If there are no objections we can move on.

A link to the charter was posted in the chat. The document version can be sent to people.  
~ Joe requested it be sent to him.

Thank you to Matt for the real-time changes. Very useful.

Question: Will the release notes include a list of what's been deprecated?

Answer: Someone assumes so. Not sure who writes those.

~ Steve writes them.

~ We should make sure that's included.

Another Question: Should it be part of the procedure?

Answer: Not sure, but it should be in the release notes.

Question to Steve: Would that information end up in the release notes?

Answer: Will need to look into it, but sure that Jordan would want a copy.

~ The question is if this should be part of the policy.

~ Sure. We can put it in the policy.

~ Thanks for the input.

## CCB#41 - Create a way for classes or attributes to be exposed to other LDDs but not to data providers

Just going to introduce the topic. The issue is that there is a problem in discipline and mission areas. Anything that's been exposed can be used in any context. This SCR is to restrict the use of exposed attributes/classes while allowing them to be used in LDDs.

Question: Any comments or thoughts?

Answer: Someone hasn't kept up, but wonders how often this has happened and why we care. Unclear if there is a hole or if something has happened.

~ The worst someone can see would be internal reference without context. Would be unclear what it is from. That's the worst that someone can think of. Attributes won't be a problem. They have to be in a class.

~ That helps. Remembers that before we released version 1.0 there was a requirement that we could reuse attributes, so unclear why we would back track. Makes more sense for classes, but still unsure why we would care. The system won't be able to do anything with it.

Not sure what it would even mean.

~ You can't just throw a naked attribute into a label.

~ Class you can. Could have local internal reference referencing some locally defined reference that's not from anything.

~ This seems like a solution in search of a problem.

Question: Has this happened?

Answer: Not that anyone knows of. Thought we would want control over what DPs do. Don't want them using the model in perverse ways. There's an example in the SCR for the Distance Specific class. The question is about the best practices and what we are going to allow to be done in PDS4.

~ Someone agrees with trying to control what's there with validate.

Question: Can we expose attributes without class? Maybe that's the best practice.

Another Question: Have you tried to use the class and validate it?

Answer: It can be made to work with dependency.

~ But there's an example there that won't. Unclear what it would mean or if it really would validate.

~ Think it would validate if the element flag is true.

This is somewhat related to a coming SCR about kernels and kernel type in the Geometry LDD. Kernel type was not exposed. It led to problems. Submitting an SCR to expose it outside of Common. The DDWG will have to discuss requirements. All related. Might want to wait for that SCR.

~ There is a request from SBN. They want to move forward.

~ This has been going on for 15 years. Haven't seen any bad repercussions with sharing across dictionaries as long as it's set up correctly.

~ Maybe we should do some testing and think about how much of a problem this really is. Unclear how much of a problems implementing this would be.

Sounds like someone is hearing that the Geometry LDD should expose Distance Specific and people can use it and if there are problems down the road we can address them.

~ Need to set up the dependency.

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We will meet again in one week - October 24, 2024.

DDWG Notes 2024-10-24

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title: DDWG Notes 2024-10-24

layout: default

date: 2024-10-24

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October 24, 2024

Notes by Debra Kazden

Version 2 - 2024-11-06 - CCB#21 discussion slightly edited.

Known Attendees: B. Hirsch\\*, L. Huber\\*, R. Joyner\\*, D. Kazden, A. Knight, P. Lawton, T. Lim\\*, J. Mafi\\*, S. McLaughlin, J. Padams, E. Schaefer\\*, and M. Tiscareno\\* (\\*'s indicate people who voted during this meeting - if applicable)

## ## DDWG Agenda

(Included in email sent October 23 from J.Mafi, Agenda for October 24, 2024)

We will have a DDWG telecon this Thursday, October 24th at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona).

We will discuss the following items:

- CCB#4 – Backwards Incompatibility policies (M. Drum): The original SCR has been updated to include the changes to the Proposed Solution that were discussed at the last DDWG telecon. Please be ready to discuss and vote on this SCR.
- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate: Please be ready to discuss and vote on this SCR.
- CCB#21 – Provenance LDD Using PROV-DM (S. Hughes): There has been a good deal of discussion on this SCR over the past week with strongly differing views on the best approach. Please be ready to continue the discussion on a way forward.

## Upcoming meetings:

Oct 24 – DDWG telecon (bonus)

Oct 31 – DDWG telecon (regularly scheduled) Nov 07 – DDWG telecon (bonus) Nov 14 – DDWG telecon (regularly scheduled) Nov 21 – No meeting (PDSMC Face-to-Face) Nov 28 – No meeting (Thanksgiving)

Dec 05 – DDWG telecon (bonus) Dec 12 – DDWG telecon (regularly scheduled); AGU week Dec 19 – DDWG telecon\* (bonus)

Dec 26 – No meeting

Jan 02 – No meeting

Jan 09 – DDWG telecon (regularly scheduled)

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

## Front-matter/What's new

1) Submitted to the CCB:

- CCB#27 – DOI requires at least an author or editor
- CCB#47 – Add permissible value  $W/cm^{**2}/sr/\mu m$  to Units of Spectral Radiance

2) New issues in GitHub: (none)

3) Ready for vote:

- CCB#4 – Backwards Incompatibility policies (M. Drum)

- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate

4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024 (key dates here). The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#29, CCB#38, CCB#42, CCB#43.

5) Withdraw by author:

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

\*\*(Discussed)\*\*

Ready to Vote

\*\*(Voted to Pass CCB#s 48 and 4)\*\*

Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition (M. Drum) The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products

- CCB#4 – Backwards Incompatibility policies (M. Drum)

Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection (Tiscareno)

- 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 (M. Drum)

- CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)

- CCB#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)

- CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)

- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)

- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD. (S. Hughes)

- CCB#45 – Add reference types values for \*-to agency (S. Hughes)

- 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 (S. 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 (J. Stone, M. Drum) \*\*(Discussed CCB#21)\*\*

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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 10/31/2024

# DDWG

## Front Matter

There are no new SCRs this week. There are several SCRs to discuss and vote on today.

Question: Any preliminary items to discuss today?

Answer: CCB#27. It was sent to the CCB and some critical comments were written. We should respond. Unclear if the build is waiting for this.

~ Someone believes they are waiting for both CCB#s 47 and 27 to get enough yes votes from the CCB to pass.

Another Question: Despite the concerns?

Answer: Yes. The comments are about the proposed text for the SR. We will do a separate SCR for that. For CCB#47 the comments weren't with the specific unit type, but with the addition of unit types in general having possible future negative impacts on search. Shouldn't consider it to be too trivial.

Question: Who searches for units?

Answer: (Speaker breaking up) The search tools will need to adjust their software. Pushed back on that, but should say the tools should adjust. Glad it's got enough votes to pass.

~ Yes. Offline. Moving forward for the current build.

~ Correct.

Today we will discuss CCB#s 4, 48 and 21. Starting with CCB#48 because it will be less conversation.

## Ready for a Vote

## CCB#48 - Add JP2 as an allowed extension in the PDS tool Validate

This is already documented as a reserved extension in the SR.

Question: Are there any concerns before we vote?

Answer: (Silence)

A general comment: Would like to update the title to say what we are actually voting on. In general, when we have release notes the SCR title should be what is actually happening.

~ In GitHub only the person who created the ticket can update the title.

~ Ron can edit it.

~ There are some VIPs who can do it. They have higher privileges.  
~ If people do that please also leave a comment.

Someone thought the title for this one is accurate for what was wanted for this SCR.

~ EN thought it was a validate ticket.  
~ Almost, but okay doing more. Open to it if people want to.

**\*\*The Vote to approve CCB#48:**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Not Present

IPDA - Yes

NAIF - Not Present

PPI - Yes

Rings - Yes

RS - Not Present

SBN - (microphone issues)\*\*

This passes even though it's kind of a validate ticket.

~ It should be a consent item for the CCB since it's like a bug fix.

#### **## CCB#4 - Backwards Incompatibility policies**

The text has been updated. Proposal is to add proposals and policies to the DDWG (charter?) regarding how backwards incompatible changes are implemented and removed from the IM.

Question: Any comments?

Another Question: Is EN comfortable with this?

Answer: Yes. More work for EN to pull all of this out and track it, but it's okay. More interested in major versioning being adopted properly in the future.

~ Someone tried to speak but broke up.

~ If this is proper software engineering, yes, backwards incompatible changes are often ripped out of software, not a problem. Biggest issue will be regarding comments on tracking. We'll need to automate. Otherwise we won't do it. Not going to manually curate it. Can't create more work.

~ Agree. It has to be included in SCRs. Any details we want to track, including having a good title. Would propose if we are going to approve this we should add a section to the SCR template about what's being deprecated so we can track it. Need to have it in a specific place.

~ Good suggestion.

~ Terse version description would be good too.

Question: Does this need to be fleshed out before we vote? This just makes policy. Could maybe leave implementation of policy for a later date. There's a note in the SCR about letting DPs know it gets done, so think it's okay to leave the details as a separate issue.

Answer: Seconds that. Will be iterative with the DDWG and EN. First time no one will know what's going on.

~ We need to workshop this.



Question: Any other comments?

Answer: (Silence)

**\*\*The Vote to approve CCB#4 as written:**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Not Present

IPDA - Yes

NAIF- Not Present

PPI - Yes

Rings - Yes

RS - Not Present

SBN - No Longer Present\*\*

(One node voted yes and said they are voting yes with the hope of never having to discuss this again. Another node agreed.)

**\*\*Action Items - Joe\*\*** will reach out to anyone who might want to evote after the meeting. He will also report the results to the CCB.

**## Tier 1 Items**

**## CCB#21 - Provenance LDD Using PROV-DM**

There has been a lot of discussion on this one. Essentially, the proposal is to create a product to enable the tracking of a provenance of a product. Specific versions of a product. Discussion has been where products have different LIDs for various reasons and how to track.

Question: Any comments? There has been a lot of discussion about how to handle changes in LIDs.

Answer: A quick run down from EN is that we have products that have changed LIDs and we need to track that somehow. Could be done behind the scenes in the registry. Introducing this because it could show what products supersede which. Could show it in the IM. Agree that it could be abused, but a lot of stuff in the IM can be. Not sure of the best answer, but it is needed in the archive.

~ Much of the discussion has been about handling instances where the LID has changed.

~ It's only been in the last two or three years that someone has come to understand identifiers. Don't think LIDs can change. There is a software solution already, the same LID with a different version, and source product. Could use the system. If we create an apparatus for changing LIDs then people will keep doing it.

~ The onerousness of making these errors creates work for EN. Trying to point to what superseded what.

~ If the DP didn't archive according to the rules, they should fix that.

Question: Someone has a question about the mechanics of how this will work. If you have a product that you are superseding a LID for, then you have to put this LDD in the new product?

Answer: We should look at Steve's example in the SCR. (Sharing screen) ~ The one with the JPEG in the zip file. Superseded-23107.PDF. Sent from Steve to Jordan. The use case on the left, LID A and LID B currently exist. They are in the archive, so we can't change them. We would need to create different

versions to show the relationship. Use Case 1 includes the LDD to clearly show the superseded LID is connected. It's a difficult thing to discuss.

Someone is concerned that if we put that into version 2 and point back to a previous version, the LID already exists, so we would have to edit the label.

~ We can't edit the LID in previous products. They might be included in published papers.

Question: But have they been used?

Answer: There is no way to know, but probably yes for something like version 1 of Mars 2020.

~ Or the InSight Mag data.

~ EN agrees with showing the provenance in the archive, but it will require software.

~ Yes. This already happened and broke the system.

~ With respect, I would say instead that this already happened and broke those particular data sets. The question is whether we now will intentionally break the system in order to accommodate it.

~ A few people said that's a good question.

Question: Does the provenance LDD go in the new product label?

Answer: LID A.1.1 would say LID A is superseded by LID B. Can't change LID B because it's already in the archive.

Another Question: So you have a 2.1?

Answer: Could do that.

Question: Is all of this extra context going to need to be done going forward when we already have a way to do this?

Answer: Absolutely not. This is for abnormal cases. Provenance provides a lot of capabilities.

In Use Case 1, creating a product that will be superseded on delivery to connect the products in the system.

~ Correct. Introduced this because part of the system is ensuring provenance of the archive. This is a headache for EN either way. Whatever is best for the archive and system is what we will move forward with.

~ Use Case 1 would not be used a lot, but retroactively.

This is a very confusing topic.

Question: Use Case 2 is a new product with a new LID and uses this to say it supersedes an old product?

Answer: Technically a new version of LID A. Blue box, Use Case 1 is a new version that points forward.

Question: Someone is confused and has a simple question about LID A and LID B. Do you mean that the LID string has changed?

Answer: Yes.

Another Question: Totally changed?

Answer: Yes.

~ There's an example from InSight Mag. In the file naming convention the file name included the start and stop times to the second, but when the data was reprocessed the times didn't match. No one noticed until later. Took precautions to not allow that to happen again. Use Case 2 should never happen, but Use Case 1 has.

- ~ Sounds like this goes back to data management plans.
- ~ Had this conversation for Clipper because they were putting UTC times in labels. Asked them about if that didn't match the SCLK if they would keep the file names and they agreed because it's an identifier.
- ~ Creates difficulty for the DPs. Have to have a mapping of files. Complicated. We tried to resolve the InSight issue by designing LIDs in a way that they won't change. For the new InSight LIDs we used SOL numbers. It is correct that we need to be aware of this when we design the SISs and DMPs.
- ~ It would be great if the LIDs were incrementing numbers.
- ~ People want meaning built into the LIDs (Conversation continued with a discussion of random number generated LIDs)

Someone said they are finding this discussion a bit disturbing. Would like to see a policy on how to use this and limiting the use of this.

- ~ People agree.
- ~ There are two discussions to have - what to do with ones that exist and how to prevent it in the future.
- ~ Someone agrees. We need to restrict the ability for Use Case 2 to happen.
- ~ Nodes are still discussing this. Conversations are very heated.

Question: Are there any last comments? Appreciate everyone's input on this and thanks to Jordan for being here today.

Answer: It occurs to someone that one way to fix this would be to deliver new products with old LIDs. It will orphan the old versions.

- ~ Old versions are in the system. No way to say this is an old version or this is a new version.
- ~ That approach wouldn't get rid of the need to track the provenance.
- ~ Right. It's the cleanest hack we can do to drive the understanding.

Next Meeting October 31.

DDWG Notes 2024-10-31

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title: DDWG Notes 2024-10-31

layout: default

date: 2024-10-31

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October 31, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey, T. Hare\\*, L. Huber\\*, S. Hughes\\*, R. Joyner, D. Kahan\\*, D. Kazden, A. Knight\\*, P. Lawton, T. Lim\\*, M. Mace, J. Mafi\\*, S. McLaughlin, J. Padams, E. Schaefer\\* and M. Seritan\\* (\\*'s indicate people who voted during this meeting - if applicable)

## ## DDWG Agenda

(Included in email sent October 29, from J.Mafi, Agenda for October 31, 2024)

We will have a DDWG telecon this Thursday, October 31st at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). I would like to review the status and discuss paths forward for the following SCRs:

- CCB#21 – Provenance LDD Using PROV-DM
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Product
- CCB#32 – Add Host type to Observing System Component

## Upcoming meetings:

Oct 31 – DDWG telecon (regularly scheduled) Nov 07 – DDWG telecon (bonus) Nov 14 – DDWG telecon (regularly scheduled) Nov 21 – No meeting (PDSMC Face-to-Face) Nov 28 – No meeting (Thanksgiving)  
Dec 05 – DDWG telecon (bonus) Dec 12 – DDWG telecon (regularly scheduled); AGU week Dec 19 – DDWG telecon\* (bonus)  
Dec 26 – No meeting  
Jan 02 – No meeting  
Jan 09 – DDWG telecon (regularly scheduled)

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

## Front-matter/What's new

### 1) Submitted to the CCB:

- CCB#4 – Backwards Incompatibility policies
- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate

### 2) New issues in GitHub:

- CCB#49 – Suggested Revisit of (new) Section 9J in Standards Reference

### 3) Ready for vote: (None)

4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024 (key dates here). The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#27, CCB#29, CCB#38, CCB#42, CCB#43, CCB#47.

### 5) Withdraw by author:

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

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

#### Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.
  - CCB#13 – Ensure file name and directory path name adhere to SR
  - CCB#20 (JIRA-CCB-358) – Instrument Package Context Products Need to form tiger team
  - CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection (Tiscareno)
  - 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 (M. Drum)
  - CCB#31 – Ensure that dictionary versions are specified in labels (M. Tiscareno)
  - CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection – C. Seyb (CIS)
  - CCB#35 – Add Alias Index and Acronym Index to the Investigation class (S. Hughes)
  - CCB#36 – Add Mission Phase to the Investigation class (S. Hughes)
  - CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
  - CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD (S. Hughes)
  - CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles (R. Deen)
  - CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers (M. Tiscareno)
  - CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD. (S. Hughes)
  - CCB#45 – Add reference types values for \*-to agency (S. Hughes)
  - 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
  - CCB#22 (JIRA-CCB-164) – Display Settings not required for images 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 **\*\*(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!

- 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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 7 Nov 2024

# DDWG

## ## Front Matter

A number of SCRs to discuss today. Not planning to hold any final votes, but will have discussions and get the SCRs advancing.

There is a new SCR - CCB#49 (Suggested Revisit of (new) Section 9J in Standards Reference) from Anne. There are comments in GitHub. The SCR has to do with edits she recommends for the SR and DPH wording for CCB#27 (DOI requires at least an author or editor). We won't discuss much today, but we should handle this pretty quickly.

There are five SCRs to discuss today.

## ## Tier 1 Issues

### ## CCB#21 - Provenance LDD Using PROV-DM

Quite a lot of discussion in the last week.

Question: What are the issues? Seems like directionality is a concern. What do we need to do to get this moving?

Answer: There's the original SCR and additional material. Think there might have been some confusion over the diagrams that were discussed last week while I was on vacation. Realized there is an issue with directionality. Added three new use cases. Sharing screen now. Hoping to clarify. Original SCR would provide an LDD for provenance. Based on WC3. Showed example of the provenance LDD on the screen. The actual use cases are to try to show simpler examples than what was originally proposed. Just working on superseded now. Uses the same WC3 model for provenance. Looking at 241030.zip in SCR. Has JPEGs and Power Point. Looking at the Power Point. Superseded LIDs. Hopes it is what we looked at last week. Shows two use cases. Bi-directional. Discussing superseded LIDs. Not Products, just LIDs. Use Case 2 is bi-directional fall back. Probably the preferred and most comprehensive case. Use Case 3 is uni-directional and preferred. Use Case 4 uni-directional fall back. Examples show when the provenance LDD put in. Use Case 5 is uni-directional preferred. Shows different semantics. Supersedes product. There could be additional use cases. Was concerned when read comments and the question over if we want to do this at all. Should do a quick strawman before we move forward, but there is a request for this.

Question: Any comments or questions?

Answer: (Silence)

A strawman would probably be useful to see if folks are willing to consider this.

~ Someone thinks the comment was regarding a suggestion that we do a table. Strawman vote should be do something or do nothing.

~ Believe that refers to the argument that if you discover you have a product with a new LID you should replace that.

~ Yes. That's what was more concerning. Table is another possible implementation. Using provenance approach with an LDD allows more than a simple table. The question is if the information would go in the label.

~ The use cases were helpful.

~ Use Case 5 is the norm.

~ Could be a need to have a separate discussion on superseding LIDs versus superseding products.

Question: Do we have a sense of how often this has already occurred and how often it might?

Answer: PPI has one case where it happened.

~ Someone asked Richard for the list. Approximately 800 times, so in the hundreds and it might continue to happen. Could submit an SCR about changing LIDs if we are going to allow this to continue.

~ The PPI case was completely accidental. Hopefully, it won't happen again. Think in most cases it's not the desired outcome. It's either a mistake or the DP went against the recommendations of the node.

~ The chat clarifies that the 800 is context products, it doesn't include additional incidences, like the PPI issue.

~ Will be more explicit for describing the relationship too.

~ Someone thought that would be done with internal references. It would be okay to use this in addition to the references, not in place of them.

Question: Are there any strong objections to allowing this at all?

Answer: Someone would suggest we vote on if we are moving forward or dropping this approach.

~ Kinda goes with the comment that this should never be allowed to happen, but it did and could again.

~ Someone plans an SCR to see if it's allowed to happen again.

~ Comment from NSSDCA - agree, this should not be allowed to happen and LIDs should be corrected. Once LIDs are registered it should always be that value.

~ That's perfect. We don't want this to happen, but it could accidentally happen. Not designing something to handle it if it does isn't okay cause it has happened. We need a way, a software solution, to deal with this if it does happen.

~ Rings would vote no.

~ With respect to context products, that's a one off to get them to conform to a formation rule.

~ A speaker agrees this should not happen, but it has. Could go back and replace the wrong LIDs, but that creates new problems.

Question: Any last comments? Would like to have a straw poll to see if we should continue to work on this. Not a binding vote.

Answer: (Silence)

**\*\*Straw Poll to see if we should continue to work on CCB#21:**

ATMOS - "Yeah, I guess"

EN - Yes

GEO - Yes

IMG - "Yes, as long as Steve does it"

IPDA - Yes

NAIF - Abstain

PPI - Yes

Rings - No

RS - Abstain

SBN - Not Present\*\*

There is sufficient support to continue moving forward.

Question: Would having a Tiger Team be helpful?

Answer: Additional use cases would be helpful for the discussion.

~ Someone doesn't want to create a Tiger Team.

~ This kinda makes someone wish we still maintained versioning in the VAX system.

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

This is about enforcing rules in the SR for file name and directory path name. Ron had developed a series of schematron rules to enforce, then there was a comment that we should try to do it with schema. Joe took a crack at that. Unclear if that's a better approach. The error messages are not helpful when you use schema. It just tells you a pattern, doesn't give specific error message that you would get from schematron. However, schematron can influence the time to run validate.

~ That was an idea. And there are three advantages to using schema - it can be re-used, ensures they have useful definitions and efficiency, possibly.

Question: The original implementation was to use schematron rules. Took a crack at using schema. Is that more efficient?

Answer: EN couldn't tell you.

~ The error messages definitely are a lot less friendly.

~ Both take a lot of processing to make them work. Anne might know the answer.

~ The error messages for schema are way less user friendly or helpful.

~ We can all trust ChatGPT - for validation, schema is faster than schematron. There's a giant paragraph on that.

We should vote on an approach at an upcoming meeting. We can modify the SCR for the selected approach and then vote on that. Think we are pretty close.

#### ## CCB#33 - Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

There was a lot of discussion about this awhile back, but none recently. Wanted to see where we are and what we can do to get this moving. Unsure what the sticking points were. This did spawn at least one additional SCR. It's important not to get bogged down by the use instead of the issue.

Question: Does anyone know the status of this?

Answer: Someone thinks Bob is still hoping to get this through. We should keep this open.

Another Question: Anyone want to express concerns on this?

Answer: There is a long comment in GitHub from August 5. GEO is not a fan of fragmenting the inventory. Also, efficiency seems to be motivating, but not sure we might not need a second SCR to address that.

Another Question: Would validate need a flag to only do part of a collection?

Answer: That's part of it. GEO does something like that that's a reasonable workaround.

Someone thinks Jordan said there would be a registry solution for validate in the future, but not in place. Unsure if fragmenting inventory would be beneficial for validating.

~ Same sort of solution for giant files. Downloading versus validating. Need to use a software solution.

~ Another someone wonders how often people download the inventories.

Question: Would a straw poll be helpful to decide if we should continue working on this?

Answer: First, a side issue as part of this, multiple versions of a LID occurring in a collection. New SCR,



CCB#46 (Disallow multiple versions of the same LID from occurring in a single collection). It might be more helpful to address that first.

~ Okay. Agree. It might be beneficial to consider them in tandem. That SCR proposes that validate flag as error if two instances of the same LID with different VID in an inventory. Has bearing on this.

~ (Something about the connection.) Would like one inventory per release, but they don't remove any LIDs, just want to accumulate.

~ True. That's what CSS does, but they version it. Could just validate what is new.

~ Others had that suggestion too.

Question: Would it make validation faster? Unsure we heard from EN on that.

Answer: Someone suggested it to Jordan, but unsure if he looked at it.

~ The question is how validate should operate and if it can just validate new stuff.

~ It could do that, but it's not what we do. Not a lot of time to work on validate solutions, but it can be looked at in the future if it becomes a priority for improving performance.

~ That would be useful.

~ We can talk about ways to validate for efficiency. There is a work around for this, so it's hard to prioritize.

It's hard to guarantee that people are using the correct latest version when there are multiple versions of the same product. Concerned that it breaks a huge advantage of PDS4 - knowing what version a researcher actually used.

~ And superseded data sets outside PDS will be critical too. We do need a solution. Going in circles.

Would like to do a straw poll.

~ It would be good to let people think about the issues. We can do that in a week or two.

## CCB#20 - Instrument Package Context Product and CCB#32 – Add Host type to Observing System Component

There has been quite a bit of discussion, but not much recently. Unsure where we left things.

Question: Any comments? Would this benefit from having a Tiger Team? Seems vague in terms of how to handle comments and solutions.

Answer: Matt (Not Here) thinks it's a good idea and would be willing to be on the Tiger Team.

~ Someone agrees it would benefit from a Tiger Team.

~ The Tiger Team will be Matt and Joe.

~ And maybe Bob from IMG.

~ There should be someone from SBN. They are interested.

\*\*Action Item - Pat\*\* will mention it to SBN.

~ Ron will be the EN stuckie.

Good group. It will be worked off-line.

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Question: Any last comments? Our time is pretty much over.

Answer: (Silence)

We will meet next week - November 7

DDWG Notes 2024-11-07

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date: 2024-11-07

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November 7, 2024

Notes by Debra Kazden

Known Attendees: T. Hare\\*, B. Hirsch\\*, S. Hughes, R. Joyner\\*, D. Kahan\\*, D. Kazden, A. Knight\\*, P. Lawton, J. Mafi\\*, J. Padams, E. Schaefer\\* and M. Tiscareno\\* (\\*'s indicate people who voted during this meeting - if applicable)

## ## DDWG Agenda

(Included in email sent November 6, from J.Mafi, Agenda for November 7, 2024)

We will have a DDWG telecon this Thursday, November 7 at 9:30 PDT (12:30 EDT, 9:30 MST in Arizona). We will discuss the following SCRs:

- 1) CCB#13 – Ensure file name and directory path name adhere to SR:
  - a) Please review the two different options for enforcing the directory path and file naming rules: the first using Schematron (posted in the Applicable Attachments section in the original SCR), the second using Schema (posted in the jmafi comment of Oct 30). We will vote on which of these approaches to use.
  - b) Following that vote, if there are no additional issues, we will vote to approve or reject the SCR.
- 2) CCB#49 – Suggested Revisit of (new) Section 9J in Standards Reference: Please review the requested changes to the SR wording. We will discuss them, and based upon the outcome of the discussion we may vote on the SCR.
- 3) CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection: Please review this SCR and be ready to discuss it.

## Upcoming meetings:

Nov 14 – DDWG telecon (regularly scheduled) Nov 21 – No meeting (PDSMC Face-to-Face) Nov 28 – No meeting (Thanksgiving) Dec 05 – DDWG telecon (bonus) Dec 12 – DDWG telecon (regularly scheduled); AGU week Dec 19 – DDWG telecon\* (bonus)  
Dec 26 – No meeting  
Jan 02 – No meeting  
Jan 09 – DDWG telecon (regularly scheduled)

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

## Front-matter/What's new

- 1) Submitted to the CCB:
  - CCB#4 – Backwards Incompatibility policies
  - CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate
- 2) New issues in GitHub:
  - CCB#50 - Clarify Ambiguous Author Information in Product Document
- 3) Ready for vote: (None)
- 4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#27, CCB#29, CCB#38, CCB#42,

CCB#43, CCB#47.

5) Withdraw by author:

- CCB#6 – Adopt official policy and procedures to evaluate the need for a major version every year

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

Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products Need to form tiger team

- CCB#4 – Backwards Incompatibility policies

Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection

- 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

- CCB#31 – Ensure that dictionary versions are specified in labels

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

- CCB#35 – Add Alias Index and Acronym Index to the Investigation class

- CCB#36 – Add Mission Phase to the Investigation class

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles

- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers

- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD.

- CCB#45 – Add reference types values for \*-to agency

- 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

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

**\*\*(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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 14 Nov 2024

# DDWG

## Front Matter

There are three SCRs to discuss today - CCB#s 13, 49 and 46.

There is a new SCR - CCB#50 (Clarify Ambiguous Author Information in Product Document). It is an issue that we have been aware of for some time. It was mentioned in CCB#49. The issue is that in product document there are two places author information can go, citation area and in the document class. Right now, there are no rules about the relationship. The purpose of the SCR is to define that and put in rules to modify the IM to manage the decision.

## Tier 1 issues

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

There are two ways to do this that have been posted in the SCR comments. Schematron or patterns in the schema. On our last call it was reported that schema is more efficient.

Question: Has anyone else done any research?

Answer: The difference is probably only seconds. Don't let that decide anything.

~ The error messages are much nicer in schematron.

We can do a strawman poll to see which method is preferred.

~ Someone agrees about the efficiency. Schema attaches to the type itself and can be reused. Potential future benefit. We use schema validation in a lot of places. We could update it to give better error messages.

Question: Other thoughts?

Answer: Someone agrees that schema could be customized. Unsure if schema message would come up instead of schematron if both are in place.

~ Would get both. When EN writes the schematron they write it so errors are very close to the attribute or class. Could make the path document so it would be a child attribute, but EN tries to localize the error.

~ Another person agrees with the logic, but unsure why this is a question. If we want to restrict the pattern of these every time, then we should restrict the attribute. Schematron rule seems like an ad hock restriction on the type.

~ In schema it is done on the data type. It has a pattern. Schematron restrictions on specific attribute because it's in a specific context. In this case, those data types are only used here, but that might not always be true if the IM changed in the future. Likes using schematron rules - more specific error message. Schema just gives an error.

~ The horrible regex

~ Someone likes the schematron's more user friendly error message, but hadn't thought about doing both.

~ It's important to put restrictions at the level of the type. Could also have schematron rule to have a

nice error message.

~ Oxygen does schematron validation, but text editors don't, so a schema rule is more valuable for that.

~ We are conflating data types and attributes. Data types should do what it is designed to do. If we want to add schematron that is a different idea. Should deal with getting the data type right and can deal with schematron as a separate topic.

We will do a Straw Poll on the approach to enforce the restrictions - Three options:

- 1) Schema only
- 2) Schematron only
- 3) Both

**\*\*The Straw Poll:**

ATMOS - Not Present

~ "Confused about schema rules and XSD."

~ "XSD commented out right now to test issues. Not catching duplication, but working otherwise. Third option would implement both"

EN - "Patterns in XSD and schematron"

GEO - "Schema only, as much as possible"

~ "Can't do that"

~ "That's why I qualified it"

IMG - "votes for Ron"

IPDA - Not Present

NAIF - Not Present

PPI - Both

RMS - "Schema only, as much as possible"

~ "Not sure what that means"

~ "Rule you can't have duplicate file names in the same directory. test in schematron."

RS - "Votes for nice error messages"

SBN - Schema only\*\*

Three schema only and 4 for both. A slight advantage for both. This will take some changes to the SCR.

~ The most important issue is where it's implemented - at type level or attribute level.

~ All votes were for schema. The only difference was if we implement nice error messages in the schematron. That's done at the data type level.

~ Someone feels bad that we all basically voted against EN when this is an implementation issue.

Unclear on their preference (breaking up as speaking). Trying again, feels bad we are all voting against EN. Would like them to clarify their preference.

~ Patterns were developed by Joe for the XSD so we could remove the functionality equivalent in schematron.

~ Right. Trying to share screen to show the current implementation type for directory path name. It is ASCII short string collapsed. Very few restrictions on it. Request is to change it to ASCII directory path name, which has a pattern restriction on it. The proposed implementation for schema approach. Done using a type. Changes from generic type to a specific type. File name attribute also changed. Included in schema. The other changes are the series of rules applied to the attribute to give nicer error messages, that's the two different approaches.

Question: So, schematron has to be applied to the data type?

Answer: Data type is a class. Schematron typically works on attributes. The point is you're now talking

about the label with a data type. Want to make a point. Said the schema approach doesn't handle duplicates. Unsure why that's an issue with data type.

~ Attribute specific rule, not data type level.

~ If we fix the data type and have a no duplicates rule - standard schematron rule.

~ Included in schema or schematron approach. Can't avoid schematron for that reason. For nicer error message.

~ Good point, but also understand the overhead. Unsure if the overhead time is worth it.

~ We can look at the IM requirements and fix it if we get bad error messages, but we already had a vote.

Question: Any other comments?

Answer: (Silence)

Another Question: Any objections to voting on this SCR?

Answer: It was such a close vote. We should wait until everyone is here.

There are three issues to vote on: 1) fixing data type, 2) having a requirement to check for uniqueness and 3) the need for more explicit error messages.

~ Someone likes that. We will hold off on having a final vote and look at those three questions. Maybe we want to do it by email so we can vote on the SCR next time or we can continue the discussion next time for folks who aren't here.

**\*\*Action Item - Joe\*\*** will put together an evote on those three questions. We can have an in person discussion next time if anyone wants that.

#### ## CCB#49 - Suggested Revisit of (new) Section 9J in Standards Reference

This is about proposed changes to the wording in the DPH for CCB#27.

~ In the SR.

~ There are two issues to address. The second one is addressed by a new SCR, CCB#50 (Clarify Ambiguous Author Information in Product Document). Hopefully everyone has read the SCRs. Unsure if anyone has any issues with the first two sentences that Anne recommends striking.

~ These are recommendations from Anne. Inclined to trust her expertise on this, but would like to hear from the writer too.

~ Someone wants to push back on the first comment. Doesn't agree registration authorities allow the creation of DOIs. DOIs are assigned to digital products. Like the first two sentences - wrote them.

~ Another person with expertise that we trust.

This is not a proposal on words. Let's hear the new sentences.

~ She recommended removing them, not replacing.

~ Oh.

~ See GitHub for the text that would be struck.

~ The sentence left is semantics. Don't think it's worth our effort to discuss.

~ Second that.

~ The last sentence is for document product. Completely applicable to document product, which is CCB#50.

~ Anne said to strike the first two sentences.

Question: Can we use a link to DataCite?

Answer: She wants to remove sentences and let readers research on their own. Same philosophy.

~ Someone is hearing EN say they don't want this. We should hammer this out and be done with it.

~ It's a waste of time, but we can remove the first two sentences. Last should remain.

Another Question: Is there a way to make it clear?

Answer: Remove all of them and let's move on.

Question: Any objections?

Answer: (Silence)

**\*\*The Vote for CCB#49:**

ATMOS - Not Present

EN - Yes\*\* ("but update the Requested Changes to say removing blah, blah, blah...") **\*\*GEO - Yes IMG - Yes IPDA - Not Present NAIF - Not Present PPI - Yes RMS - Yes RS - Yes SBN - Yes\*\***

That passed.

**\*\*Action Item - Joe\*\*** will update the Requested Changes and send this to the CCB after this meeting.

**## CCB#46 - Disallow multiple versions of the same LID from occurring in a single collection**

This is something that came up because of CCB#33 (Change cardinality of File Area Inventory to allow multiple inventory files for a single collection), which is now being withdrawn.

Question: What are people's initial thoughts? I was surprised to hear that other nodes were doing this.

Anyone besides IMG?

Answer: SBN has some.

Another Question: What's the argument for that?

Answer: Intentionally done in New Horizons where multiple calibrations were done. All calibration files exist.

Another Question: Different flavors?

Answer: Done at different times.

Another Question: Do all the data use one or various?

Answer: Various. Have to have what's been done at any given time.

Someone discussed this with Anne. She said that even though there are examples of this, it would be no problem if we update the policy. Maybe we do need the standards to be more clear. They could apply going forward.

~ The situation that was just described is interesting. Can see the utility of having multiple versions.

Hadn't considered it. Multiple versions of the same data product seems like it could be confusing.

~ It would be better if they had different LIDs.

~ SBN discussed options, but not sure how much users will look at the LIDs rather than what gets served to them.

~ Someone thought the registry gives out the latest version.

~ If the product refers to a specific version it should give them that, but normally searchers would get the latest version.

~ The registry always serves the latest version unless specifically requested. Older versions are considered superseded. The newest version is served unless someone asks for a deprecated version.

Question: If there are duplicate versions in an inventory, would the registry only deliver the newest version?

Answer: Right. There are different entryways into the archive.

Another Question: If I ask for a specific old LIDVID, can I get it?

Answer: Yes. You can also request all versions, but generally the latest version is served. It's usually what users want and how PDS4 is designed.

~ So, there is a software solution to this issue. The question is if that is sufficient or if we need to make this a standards and validate issue.

~ If it's going to be in validate it has to be in the standards.

~ Someone would say in standards for any given LID the default is to look at new version. we can word-smith the language. Thought that's what VIDs meant.

A few weeks ago it was suggested we discuss this at the MC.

~ Software will have to support what's out there. We will add this as an item for discussion at the F2F.

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We will meet again next week - November 14.



DDWG Notes 2024-11-14

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date: 2024-11-14

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November 14, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey, J. Blalock, T. Hare\\*, B. Hirsch\\*, L. Huber\\*, S. Hughes\\*, R. Joyner\\*, D. Kahan\\*, D. Kazden, A. Knight\\*, P. Lawton, J. Mafi\\*, S. McLaughlin, M. Seritan and M. Tiscareno\\* (\\*'s indicate people who voted during this meeting - if applicable)

## ## DDWG Agenda

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

We will have a DDWG telecon this Thursday, November 14 at 9:30 PST (12:30 EST, 10:30 MST). In addition, we will discuss the following items:

- 1) DDWG Open Session – We will briefly discuss the current plans for the DDWG Open Session at the PDSMC Face-to-Face next week (see below for more information).
- 2) CCB#13 – Ensure file name and directory path name adhere to SR: Node voting representatives, please submit your votes on the questions in the J. Mafi comment of Nov. 7 ([https://github.com/NASA-PDS/PDS4-CCB/issues/13\\*issuecomment-2463564785](https://github.com/NASA-PDS/PDS4-CCB/issues/13*issuecomment-2463564785)). If these votes are submitted with sufficient time, the Requested Changes will be modified to reflect the vote, and we will vote on this issue. Otherwise, we will collect votes on the questions during the Thursday telecon.
- 3) CCB#31 – Ensure that dictionary versions are specified in labels: Please review this SCR and be ready to discuss it.

Please note, that while there will be no DDWG telecon next week (Nov. 21), we will instead be holding a DDWG Open Session on Tuesday, November 19, as part of the PDS Management Council Face-to-Face meeting. This session will include two sections:

9:15 AM – 10:30 AM PST

11:00 AM – 12:30 PM PST

Items for discussion are posted on a spreadsheet on the PDSMC Google Drive

([https://docs.google.com/spreadsheets/d/1ot8Y3Tf9Sd3SFUpElBftyTyxrCYd92wq/edit?gid=1272547738\\*gid=1272547738](https://docs.google.com/spreadsheets/d/1ot8Y3Tf9Sd3SFUpElBftyTyxrCYd92wq/edit?gid=1272547738*gid=1272547738)). To attend the DDWG Open Session, please use the following link:

[https://teams.microsoft.com/l/meetup-join/19\\*3ameeting\\_MDE5NDg2MTktNWQ1OS00ZDY4LWI2NzAtN2Q4MWRkYzBhMmU4\\*40thread.v2/0?context=\\*7b\\*22Tid\\*22\\*3a\\*227005d458-45be-48ae-8140-d43da96dd17b\\*22\\*2c\\*22Oid\\*22\\*3a\\*22e7d4a494-9288-480c-a48c-8b3bcb13d173\\*22\\*7d](https://teams.microsoft.com/l/meetup-join/19*3ameeting_MDE5NDg2MTktNWQ1OS00ZDY4LWI2NzAtN2Q4MWRkYzBhMmU4*40thread.v2/0?context=*7b*22Tid*22*3a*227005d458-45be-48ae-8140-d43da96dd17b*22*2c*22Oid*22*3a*22e7d4a494-9288-480c-a48c-8b3bcb13d173*22*7d)

## Upcoming meetings:

Nov 14 – DDWG telecon (regularly scheduled) Nov 21 – No meeting (PDSMC Face-to-Face) Nov 28 – No meeting (Thanksgiving) Dec 05 – DDWG telecon (bonus) Dec 12 – DDWG telecon (regularly scheduled); AGU week Dec 19 – DDWG telecon\* (bonus)

Dec 26 – No meeting

Jan 02 – No meeting

Jan 09 – DDWG telecon (regularly scheduled)

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

Front-matter/What's new

1) Submitted to the CCB:

- CCB#4 – Backwards Incompatibility policies
- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate
- CCB#49 – Suggested Revisit of (new) Section 9J in Standards Reference 2) New issues in GitHub:
- CCB#50 – Clarify Ambiguous Author Information in Product Document

3) Ready for a vote (none)

4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024 (key dates here). The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#27, CCB#29, CCB#38, CCB#42, CCB#43, CCB#47.

5) Withdraw by author:

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

\*\*(Discussed)\*\*

Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products Need to form tiger team
- CCB#4 – Backwards Incompatibility policies

Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection
  - 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
  - CCB#31 – Ensure that dictionary versions are specified in labels
  - CCB#35 – Add Alias Index and Acronym Index to the Investigation class
  - CCB#36 – Add Mission Phase to the Investigation class
  - CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
  - CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD
  - CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles
  - CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers
  - CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD.
  - CCB#45 – Add reference types values for \*-to agency
  - 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
  - CCB#22 (JIRA-CCB-164) – Display Settings not required for images 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

\*\*(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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 14 Nov 2024

# DDWG

## Front Matter

There are no new SCRs this week. CCB#50 (Clarify Ambiguous Author Information in Product Document) was new last week. There are no regular meetings scheduled for the next two weeks. Next week is the MC. The DDWG open session is Tuesday morning. There is a list of topics attached to the agenda. The list includes CCB expectations discussion, CCB#46, context scrub - editorial group versus the DDWG (unclear who added that one) and a suggestion to discuss CCB#21, which is not on the current agenda, but may be added. Joe will send additional information out tomorrow.

Question: Any questions about the open session?

Answer: (Silence)

# Tier 1 issues

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

Joe sent out a request for evotes. Received seven responses, then someone sent out their concerns. Would like to discuss that before sending the votes to the CCB. The concern was that implementing with both schema and schematron rules is a bad precedent. It's not something we have done before. The question is why we are doing it here and if we should do it elsewhere. Think the answer is no. Someone pointed out that if people don't understand an error in the schema they can reach out to PDS for additional information. We could submit this. The alignment of the votes is to submit with both.

Question: Anyone want to revisit their vote?

Answer: Someone didn't vote, but thinks we shouldn't vote.

~ Someone else also didn't vote, but is not in favor of duplicating rules if there is no reason to.

~ Another person didn't vote and missed the discussion. Unclear on what the problem we are trying to solve is.

~ File name and directory path name rules - nothing enforces them. We're testing two methods - schema patterns or schematron rules. We're able to implement most rules in schema, but not all.

~ Nothing that can't be done with schema. People don't like the error messages, so they want to

duplicate with schematron.

~ Sees the problem now.

There were three questions that people voted on:

1) Should the Schema be updated as follows:

- a. Update the directory path name and file name attributes to use the "ASCII Directory Path Name" and "ASCII File Name" types (currently they both use "ASCII Short String Collapsed").
- b. Modify the "ASCII Directory Path Name" and "ASCII File Name" types using a pattern specification to enforce the directory path and file naming rules described in the SR.

2) Should a Schematron rule be added to enforce the file name uniqueness rule stated in the SR?

3) Should Schematron rules be used to generate more explicit error messages regarding directory path and file naming restrictions than are possible using Schema alone?

Question: Do ATMOS or SBN want to vote now?

Answer: Yes.

ATMOS:

1 - Yes

2 - No

3 - No

SBN:

1 - Yes

3 - No

Someone wanted to discuss number 2, but general stance is if necessary.

We should say what the current votes are.

1 - All Yes

2 - 2 No, 5 Yes

3 - 3 No, 4 Yes

With at least one yes in question and people now on the fence because of the comments.

~ Someone said they are on the fence now for that reason.

In 2, the rule about uniqueness - the file system physically enforces this, but that does not prevent something like this in label where you could have two files with the same name in a label.

~ That's a duplicate entry. Different problem.

~ Someone doesn't follow that, but it would enforce what's not currently being enforced.

~ Someone's answer to 2 is that it can't be enforced because files can't have the same name. The question is badly formed. It should be ruled out of order.

Question: The prohibition is on the file system, not the metadata?

Answer: Correct.

Question: Any other thoughts on that?

Answer: (Silence)

Question: Any discussion on 3?

Answer: From the system side, the issue of better error messages could be handled post processing if that's what people want. It could be done.

~ That would be in validate, not in Oxygen and other tools.

~ It wouldn't work in Oxygen, but it would be in the post processing report.

~ And not all software handles schematron anyway.

Question: Additional comments? Should we re-vote?

Answer: Everyone will vote again on the three questions.

**\*\*Re-vote on question 1:**

ATMOS - Yes

EN - Yes

GEO - Yes

IMG - Yes

IPDA - Not Present

NAIF - Abstain

PPI - Yes

RMS - Yes

RS - Yes

SBN - Yes\*\*

Someone would like to vote on question 3 next.

**\*\*Re-vote on question 3 (schematron rules for more explicit error messages):**

ATMOS - No

EN - No

GEO - No

IMG - No

IPDA - Not Present

NAIF - Abstain

PPI - No

RMS - No

RS - No

SBN - No\*\*

Question 2 - schematron rule to enforce uniqueness rule in the SR - only enforces it in a very restricted context. Only would apply in context of being inside a document object. Would check for duplicate combinations of file name within a document object.

Question: Can we have this say - can schematron rule be based on draft Joe Mafi has submitted?

Answer: Yes.

Another Question: Is this really a problem we need to solve?

Answer: It would be an error, like a typo error. It's a fair question. Maybe it's an edge case.

Question: Any additional comments?

Answer: (Silence)

**\*\*Re-vote on question 3:**

ATMOS - No  
EN - Yes  
GEO - Yes  
IMG - Yes  
IPDA - Not Present  
NAIF - Abstain  
PPI - Yes  
RMS - No  
RS - No  
SBN - Yes\*\*

The votes are all yes for question 1, all no for question 3. Three no, five yes on question 2. This is a better result than the initial vote. Has a better chance of success in the CCB. We will record this and update attachments and Requested Changes to reflect these votes. Then we will have an evote on this since we won't be meeting for three weeks. Want this off the table. Evote will be on the full SCR as proposed.

## CCB#31 - Ensure that dictionary versions are specified in labels

Updates were made to the Requested Changes. The original changes were not well received.

~ Someone wanted to focus on the actual goal.

~ Someone else thinks a basic summary is just to improve the documentation. The conversation was a while ago, but Jordan said he wanted to clarify that schema location is required and which schema was used. Believe the rule that schema and schematron match has been implemented.

~ No. Validate warns you for the various LDDs if there's a mismatch.

~ Think the comments were trending to approve documentation to clarify which schema/schematron is used.

Question: Has anyone pinged Anne on this? She used to have very strong opinions on schema location.

Answer: We can discuss it with her next week.

~ SR labels at least one description of a resolvable schema location.

~ Discussed this at Las Cruces. She had strong feelings, but Steve disagreed.

~ Someone agrees with Steve. This has been contentious between Anne and EN for a long time.

~ We just need a consistent standard. No ambiguity by label designer.

~ This has been an issue for a long time. A lot of someone's comments came from the web, but in terms of implementation, schema location is very important. In general, more useful than we thought possible in the past. Kind of standard now.

Question: Do we need a requirement?

Answer: If we are going to use it we need to make it required.

~ Particularly to say which version is being used.

~ For LDDs too. See the April 18 post, which got a thumbs up, didn't think it was a valid concern. All LDDs are specific versions. We went to a lot of trouble to adopt a versioning scheme.

~ Right.

~ And there is a guarantee that URLs will remain valid until there is no more EN.

~ Yes. Been working with the registry. If something isn't there it's a problem with registry,

Question: You said until no more EN, not no more archive?

Answer: If there is no more EN the responsibility would pass to someone else.

~ Even if a re-organization the responsibility would remain.

~ We shouldn't waste time on these hypotheticals.

Question: What about the second point, file names?

Answer: There has been a naming construct that was adopted. Maybe that needs to be made a standard. Unsure if that would alleviate this concern. Maybe we need to add a guarantee that the dictionary is not going to change.

~ Yes. That would resolve the concern.

~ Another thing - you can write your own label, but it wouldn't validate and go into the archive.

~ Remember that official versions go in there. Think validate tests for that.

~ Someone is confused.

~ If schema location is not using a standard version of schema Oxygen doesn't care, but think validate would.

~ Validate can be told to use whatever version with switches. I do that all the time. One of the locals that EN tests. Eventually there's an online version.

~ Right. Archive should require registered released version.

Question: Other thoughts or comments? Think the action item is to write up changes to the SR to clarify and maybe write a schematron rule that schema location has to be provided.

~ We can't use a schematron rule. Circular.

~ Right, but validate wouldn't work without it. Need to write up some rules.

**\*\*Action Item - Matt\*\*** will take the action.

Question: Last thoughts?

Answer:(Silence)

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The open session is on Tuesday. Joe is working on presentations for the discussions, but people should bring their ideas too.

Question: Any last comments or thoughts?

Answer: (Silence)

DDWG Notes 2024-11-19

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title: DDWG Notes 2024-11-19

layout: default

date: 2024-11-19

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November 19, 2024

Notes by Debra Kazden

Known Attendees: C. Aiken, R. Alanis, A. Bailey, D. Hollibaugh Baker, T. Bar, J. Bauer, M. Bently, J. Blalock, S. Bond, J. Chau, F. Civilini, B. Deen, A. Giequel, L. Givens, T. Gueth, K. Hansen, B. Harris, M. Harte, B. Hirsch, L. Huber, S. Hughes, R. Joyner, J. Kang, D. Kazden, A. Knight, P. Lawton, T. Lim, S. Loftin, J. Mafi, T. McClanahan, C. McKay, S. McLaughlin, M. Milazzo, I. Moon, T. Morgan, L. Neakrase, J. Padams, A. Raugh, E. Schaefer, B. Semenov, M. Seritan, M. Sweeney, M. Taran, M. Tiscareno, M. Touran and R. Walker

#### # DDWG F2F Discussion

There are a number of items to discuss today, including:

- 1) CCB/SCR document requirements (see presentation: DDWG/CCB SCR Attachments)
- 2) CCB#46 (see presentation: CCB#46 Disallow multiple versions of the same LID from occurring in a single collection)
- 3) Context scrub
- 4) CCB#21 (see presentation: CCB#21 Provenance LDD)

Checked with PSA to see what they are most interested in and will prioritize the order based on their input, so CCB#46 is first. (Now is their end of day.)

#### # Presentation: CCB#46 Disallow multiple versions of the same LID from occurring in a single collection

**\*\*Slide 1 - Title Page\*\***

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

(Notes following a particular slide are the conversation that followed, not the text of the slide unless otherwise stated.)

Basically, if there are two products with identical VIDs, the higher number version is the newest, but that is not stated in the SR. We need to establish requirements. Validate doesn't flag if multiple versions of a LID in a collection.

**\*\*Slide 3 - Product Supersession\*\***

- There is no real way in PDS of handling supersession. PPI has its own way and other nodes do something different. One method that's been used is adding new versions to collection inventory. CCB#46 would disallow that.

~ Can defer, but part of the issue is defining something as superseded. It hasn't been defined.

~ Someone thinks that was somewhat intentional. Believe in the past not all nodes planned to keep all superseded products due to the large data volume if they kept all copies.

~ One problem is in a lot of missions there might be multiple versions of the same product, like calibration files. We prefer to migrate into one collection. We have many of these cases already.



looks like this would disallow that.

~ Several use cases to discuss. Can see some real value in that approach.

~ Although the SR doesn't say anything regarding supersession, the DPH does. (DPH read aloud). Regarding SBN's calibration products, as migrate old versions of things can migrate and have them immediately superseded, but if it's useful for current use it should have a different LID. The basic principal is that if you are going to look for calib, you should be able to find the version you need, not old products. Think that's the general use of version numbers.

~ The SBN problem is that they have multiple versions of a calibration product. All versions are effective. They still need to be able to link to the old files.

(Skipped ahead to) **\*\*Slide 6 - Use Case 3\*\*** This was an attempt to show how this use case works. Believe this is representative of what SBN is doing.

~ That is different collections. Three and from different missions.

~ Someone can think of examples at PPI where we used different calibrations in different phases. Think we have instances where this could be useful.

~ Calibration collection with multiple versions of the same LID, different VIDs.

Someone wants to go back to the **\*\*Background\*\*** slide, third bullet says: "Validate Tool currently does not flag instances where a collection inventory includes two entries with the same LID". Pretty sure that is not true. May need PDS4 bundle integrity check turned on. Maybe EN can verify that.

- The same LID throws an error. Super in the weeds, but if there are identical entries in the table it throws an error, a full line.

~ So it won't break down the VID and compare them?

~ Correct.

~ So the third bullet is not exactly correct.

~ People seem to think we are saying old calibration products would be unavailable, but superseded files are still available. If the best product you can get/use is superseded then you can use it

The problem is that we (SBN) are trying to migrate once - all versions into the same collection. Moving forward shouldn't be an issue.

~ Someone is not understanding why not multiple versions of the same collection at the same time.

~ Need to think abstract - think forward about missions with long time lines, where things improve over time, but we can't always go back to back fill. Calibration is one place this can apply. The question is what being superseded implies. Older documentation has to remain available. Users need to be able to reproduce provenance.

~ Someone agrees.

~ Think this is how all the nodes see this. We need the registry to have a way to say this is superseded and this is off-lined.

~ Nothing is supposed to ever be deleted.

~ Right, but the issue is about what it means to be superseded. There should be a flag.

~ There is. The VID.

~ That is not a flag. Don't want to automatically assume all lower VIDs need to be off-lined.

~ We're off topic again.

We have "superseded by" in the registry. Also other ways of doing that in the registry. VID is a string. We do superseding with superseded by field, based on version ID and other things. Can ask the

registry for old versions. They are always available, but if off-line on a tombstone page that can be requested. You can ask for a specific version or you will be given the latest version. Data users can get the latest versions of the data.

Question: How would it work where you have superseded versions in the inventory? If you download that collection? Would it deliver all products?

~ No. Physical presence on a file system is irrelevant. If we just allow one it will return the latest. If you ask for the full collection it still only returns the latest version, so it's complicated. Concerned about putting several versions of old products. Would change the way our system is intended to work.

~ So we need to clarify what it means to be superseded and get that into the SR.

~ Collection inventory gives us an idea of what to return, but we also go by superseded by.

~ The assigned by criteria assigned by EN.

~ By the standards. Just version ID right now.

Another Question: The use case of Use Case 3 slide (Slide 6) - when you have those products, what distinguishes them? Is it that they were valid at a certain time or processed at different time? If someone reprocessed the products would you then use a different calibration?

~ Important question. If one calibration applies to different portions of data then it should have different LIDs.

~ Calibration files are developed and refined as missions go on. They evolve. That's where the issue of provenance comes in. Will want different versions of the calibration at different times. As long as data is online we want all calibration files online too. Want a calibration collection to include all files, maintain provenance and be very clear to users about what's there and how it's different.

~ Critical distinction. Could be something time based or dust on the instrument, but from a software point of view it's hard to argue against time based not being a new LID.

~ That puts information in a file name. Forces users to know filename. Accounting and book keeping for DPs.

Someone wants to ask a question - Sounds like the registry and how it works won't actually work for this. Would only get the latest version.

~ If a user requests the entire collection would expect them to get all LIDVIDs in the inventory list.

~ No. Only the latest is returned. Hearing there are a lot of ramifications. Can key off inventory, but maybe then collections become less useful.

~ Someone doesn't see lots of users being interested in entire calibration collection.

~ Can ask for all versions of all products related to a collection or all versions of a LID, but it's very complicated.

~ Not asking for that. If my collection has three versions of product A and two are still active and one is off-line, I want to be able to give them the two that are active, not the off-lined one. Can code it if need be.

~ We don't return various versions, even if in the inventory table. Just the most recent.

Many questions have been put in the chat. Users do care about old data. Products need to be findable.

~ Also documents, not just calibration files. Unclear if we need to change names, unclear on the point of LIDVID. Agree people will want older calibrations, others will want to re-do it themselves.

~ We will need some node specific tools. Need to work that off-line.

**\*\*A key take away is that the registry only delivers the newest product when multiple LIDs in an inventory.\*\***

Someone has two points to make. People seem to be deathly afraid of older versions of collections. Should all have source products. Can go to superseded collection. Don't see why this is a problem. And - this has veered into calibration, but the SCR was written for data products. Maybe we could say calibrated products are different. Unsure why this is an issue for documents.

~ SBN is trying to migrate at once.

~ We shouldn't be making standards for migration purposes. Also, more concerns about what superseded means, what the criteria is. Unsure version number is a good criteria. Need to decide what superseded means in the larger scale for PDS. Would be nice to have it all written in the SR.

**\*\*A key take away is that we need to know what it means to be superseded.\*\***

Someone might respond that that sounds reasonable, but RMS keeps all their superseded data online. Can develop ways to serve superseded.

There are still two more use cases.

~ Someone has a suggestion to solve this. Historically, IMG has put all versions in the inventory. With the registry the inventory is sort of supercilious. From the registry point of view you get the current version, but you can ask for everything in an inventory, so old versions that are active somehow can be in the inventory. Would that get us around the issue? Could have a warning.

~ Use case you described is presented as Use Case 1 (Slide 4). Basically, multiple versions of LID, including superseded versions. Believe it's how the registry works. Accommodates this use case.

~ Yes, think that's correct if you can have a simple query to get all contents.

Use Case 2 (Slide 5) is from Dick Simpson. Two different calibration products, two different LIDs, but series of data products that have used the different calibration products.

A number of different uses. A lot of different understandings about what LID and VID imply and how superseded works when different products are equally valid. We need to clarify the SR and document in the SR what it all means and what happens.

Someone is having a hard time with Use Case 2. Seems like that should be different collections.

~ Question: Is there any known use of Use Case 2 or is it hypothetical?

~ Unknown. Would have to follow up with Dick. It is clear that different nodes are thinking about these things in different ways which may not work with what the registry does.

~ Someone would like some consistency, some kind of standard.

**\*\* The first step is to write up some wording on superseded products for the SR. Then, based on the proposed wording, we can have a discussion.\*\***

Someone shared that their opinion is that this issue is pretty significant. We might look at policy - have a policy at the MC level, rather than the SR.

~ That's a fair point. It might be something to handle at the MC level. We would still discuss it in the DDWG and CCB.

Question: What's the goal if this is implemented?

- ~ To gain clarity for future generations and today's users being able to get what they need.
- ~ Another advantage is it's useful to have more uniformity across the nodes for how they handle superseded products in inventories.
- ~ The SR shouldn't be telling nodes how to curate data. Everything is different from node to node, completely different circumstances. Concerned this SCR is over stepping. Not reasonable to suggest every node curate the same way.

Someone thinks that an original motivating concern for this SCR was regarding product observational that had genuinely been superseded and how that works. Use cases have been eye opening, but the motivation for the SCR was confusion of data users.

- ~ Another person agrees. Originally understood this from Use Case 1 (Slide 4), but can see the value in additional use cases.
- ~ PSA person is confused by use cases. We use accumulating data. In our user interface it only displays the latest version, then there's a toggle switch to see older versions. Wonders why we need to go to the level of rewriting. It's already solved at PSA. Is it a registry issue?
- ~ The registry only delivers the most recent version.
- ~ Yes, but unsure why we are messing around with rules for collection inventories when this can be solved with user interface.
- ~ We do our versions differently.
- ~ The rules used to be somewhat vague so archiving organizations could do what they needed to do.

A comment about not telling other nodes how to do things - we are a federated system. It's useful to have this conversation.

(15 minute break)

# Presentation: CCB#21 - Provenance LDD

**\*\*Slide 1 - Title Page\*\***

This could be controversial. Don't want this to get too deep into the issues.

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

**\*\*Slide 3 - Product Supersession\*\***

The discussion has centered around how products supersede each other, higher VIDs are considered to supersede those with lower numbers, but there are instances in the PDS archive where products got a new LID. It has occurred and has happened in error. Creates the need for the Provenance LDD.

**\*\*Slide 4 - Supersession Provenance Options\*\***

Provenance options. Also a presentation by Steve Hughes people can look at on this topic.

Questions are provenance directionality and if by LID or LIDVID.

**\*\*Slide 5 - Implementation\*\***

Can create new products providing the binding between original and new LIDs or update existing products.

The DDWG has been discussing this. It shouldn't be happening on purpose. It happens accidentally, but there is a need to draw the associations. An alternative proposal is to correct the LIDs in new products. Concern is that they have been distributed and may have been used by data users. See this as related to the last discussion because of how we define and treat superseded products.

~ Someone agrees, strongly related. Wants to clarify that they were trying to have provenance focus on LIDs. This is for superseded LID, not product. Product supersession is a separate issue. Several possible ways to implement.

S. Hughes shared his screen to show his CCB#21 presentation.

~ Slide 1 - Overview - Trying to understand what it means to have a superseded LID.

~ Slide 2 - Provenance

~ Slide 3 - Superseded LIDs, Use Case 3, Idea ~ Slide 4 - Use Case 4 ~ Slide 5 - Use Case 1

~ Superseded LID is different from a superseded product.

Open Issues: We had a straw-man vote to proceed with this. The W3C standards are a good place to start. Implementation is a secondary issue. Need to decide what we're doing and what the policies and purposes are.

~ Reasons for LID supersession. Really, when we talk about LIDs we are talking about sets of products. Use Case 3 is really the one we are discussing.

Someone is wondering why we are limiting this to superseded. Anything that precludes a more full topic at a later date?

~ Someone else agrees.

~ Beyond supersession. Provenance information has a lot of additional possible use cases. Don't want to paint ourselves into a corner.

The Provenance SCR included things like derived images. Considered relationships between products, scaled down to LIDs because of the current issues on the table, but there are many possibilities that are not excluded.

~ If we have an LDD that allows us everything, are we allowing that or limiting it?

~ Good question. Can constrain it down. Probably don't want to allow all possible things. Did start by looking at use cases.

~ The majority of the conversation has been about superseded, but that doesn't necessarily limit it.

~ Okay. Limiting for the moment.

Is this only a label thing? Could it be a table thing?

~ Implementation approaches are in the open issues slide. Need to decide how much information we want and what if there's additional information.

~ Someone didn't see the slides on the drive. Would like to look at Use Case 4.

**\*\*Action Item - Steve\*\*** will make the slide set available.

Regarding Use Case 4 - someone questions the idea that LIDs have changed. This use case seems to say DP should create a version of the superseded product with a new LID. Chat says that we could use the VID.

~ Different types can be used for relationships between the LIDs.

~ If we create a structure for changing LIDs people will do it.

~ Another SCR is planned to address that it's not allowed. This is fixing a problem after the fact.

~ Someone agrees. Going forward we don't want this to happen. No guarantees. Issues with validation and review. We need to tell DPs not to do this.

~ We can't mandate that people don't make mistakes. Also, you said if we allow it people will use it, but we're not bad actors. People make mistakes, so we need a way to fix them, but we have to trust we're all trying to do the best we can here.

There is still a lot of work to do. We need to make sure the chat is captured.

~ Laura said that she is capturing the chat.

There is a financial motive for DPs. It's best for nodes to have clear rules.

~ There's a difference between a rule and a mandate. We should have rules not to do things, but people make errors. We have to be able to deal with it.

We will continue to work on this.

#### # Context scrub - Discussion led by Lyle Huber

The Editorial Work Group (EDWG) has a charter. In recent weeks they have been working hard to scrub and edit the context products, but it's not clear that that was part of their charter. Trying to share the charter...

~ Unable to share, but posting it to the chat. Now it's being shared.

The EDWG mostly is designed to do web content. Don't disagree about getting some from context products, but concerned about their expertise to scrub the context products.

It was specifically noted that this group would not be the people who did all the work. The expectation for the work group was that they would loop in the DDWG and the nodes. That's what the team should be doing. Everyone can't do everything.

~ The DDWG charter is focused on the SR. Supposed to be advocating for science users, so web development is outside the purview of the DDWG. Agree that we need to update the context products or if something should be in the core. In a very experimental mode - getting everything designed - working together.

~ Someone's personal sense is that it's an issue the DDWG has been aware of. Context products need scrubbing. Some nodes have tried. The fact that someone is working on them seems to be a good thing. They were ported to PDS4. There were problems, but no guidance on best methods to improve them. Directions and recommendations from the EDWG are helpful. The work needs to be done. It's not happening in a vacuum.

~ One last thing is that EN doesn't have to use the context products. SBN/PSI developed something else. We can populate a database, whatever, but we have the context products and can use them. Need to be careful that new errors are not introduced.

~ Another last thing - to alleviate the concern, would like to know how the EDWG can provide

transparency and report on this.

~ Maybe as sections are completed people should be informed and asked to review them.

~ Work in iterative directories until we are ready to call them done. Can report on each iteration.

Would be awesome to get feedback on the actual content. (\*\*Action Item for Jordan\*\*)

Someone is wondering about structural IM type stuff which needs review by the DDWG and content. Not sure what to expect from content review, two separate processes. Content review has to tie in to what users will see on the website. Needs good review.

~ Another person thinks the edits being implemented in GitHub. Wonders if the GitHub review process can be used.

~ No. GitHub won't show you what the website will show you.

~ Best to view in the website. Been an open action for years. Nothing happened. Just need some progress. Nothing is set in stone. Can version them and improve them over time.

The key point is that the context products get you the high level findability in a data collection if there's also some curation. It will take a while. Still trying to develop a method.

Someone just wanted a discussion on this.

~ Sounds like an ongoing issue. We will continue to iterate and move forward.

# Presentation: DDWG/CCB SCR Attachments

**\*\*Slide 1 - Title\*\***

This discussion is regarding the interface between the DDWG and the CCB.

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

There is currently no documentation required for SCRs. Several things are often included, but there are no requirements. Recently the CCB has been requesting attachments to SCRs. We want to Discuss the expectations and value of including attachments.

**\*\*Slide 3 - Current DDWG SCR Practices\*\***

The DDWG has historically been inconsistent about what attachments are included in SCRs and provided to the CCB.

**\*\*Slide 4 - Issues with Current Practices\*\* \*\*Slide 5- Proposed DDWG SCR Practices\*\***

SCRs should include the following attachments going forward:

- schema/schematron as appropriate (most recent version)
- test labels and files with pass and fail cases
- red line copies of the document changes.

This would be for when SCRs are passed to the CCB.

**\*\*Slide 6 - Issues with Proposed Changes\*\***

Not everyone on the DDWG has expertise working with schema and schematron.

We have document writing and review teams.

**\*\*Slide 7 - Items for Discussion\*\***

It makes perfect sense to want all the expertise for schema/schematron, software, implementation and documents. We need all that expertise, but it's not realistic to expect all people to have all of it. Part of the problem now is all problems and solutions are going to one place. Should go into an issues repository. As a CCB member, if I look at an original problem statement and then have to read all the history, that's a lot. I really just need a summary. Don't want to have to listen to the DDWG. Need to be impartial in the CCB. It's more work for Joe or teams, but would like a summary of the problem, the solution and the changes that need to be made.

Question: One thing the DDWG is trying to do is to update the SCR to capture decisions. Would you rather have a separate document?

~ Updating the Problem Statement seems unethical, although that could be a symptom. Would like a summary rather than to have to dig through the discussion to access if the original problem is going to be solved. Concerned that information is being lost.

~ The history is readily available.

~ CCB just wants a summary. Part of the problem is the internal system is doing double duty.

~ In our repository you can click on parent issues, copy issues. CCB having to read extended discussions where there is no clear summary statement makes them vote no. Want a simple statement with solution that's going to work.

As to editing the SCR - that is usually done after conversations that clarify the original issue.

~ If everything ties back to the issue in the repository, fine, but that requires rather aggressive editing.

Any other comments?

(Silence)

DDWG would like feedback on where to document the requirements. Someone's preference would be to create a contributory document for the repository. A good way to make it flexible to meet everyone's needs. Any objections?

~ It's reasonable to have a procedures document separate from the charter.

~ Good.

Additional comments or questions?

(Silence)



DDWG Notes 2024-12-05

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title: DDWG Notes 2024-12-05

layout: default

date: 2024-12-05

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December 5, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey, J. Blalock, B. Hirsch\\*, L. Huber\\*, S. Hughes, R. Joyner\\*, D. Kahan\\*, D. Kazden, A. Knight\\*, P. Lawton, J. Mafi\\*, S. McLaughlin, B. Semenov\\*, M. Seritan, and M. Tiscareno\\* (\\*'s indicate people who voted during this meeting - if applicable)

## ## DDWG Agenda

(Included in email sent December 3, from J.Mafi, Agenda for December 5, 2024)

Welcome back after a much needed three week break. We will have a DDWG telecon this Thursday, December 5 at 9:30 PST (12:30 EST, 10:30 MST). In addition, we will discuss the following items:

- 1) CCB#13 – Ensure file name and directory path name adhere to SR: The SCR has been updated to reflect the DDWG votes on the three questions in the Nov. 7 comment ([https://github.com/NASA-PDS/PDS4-CCB/issues/13\\*issuecomment-2463564785](https://github.com/NASA-PDS/PDS4-CCB/issues/13*issuecomment-2463564785)) (see results in Nov. 14 comment: [https://github.com/NASA-PDS/PDS4-CCB/issues/13\\*issuecomment-2477656732](https://github.com/NASA-PDS/PDS4-CCB/issues/13*issuecomment-2477656732)). We will hold a final vote to pass or reject this SCR as currently written.
- 2) CCB#45 – Add reference types values for \*-to agency: Please review this SCR and be ready to discuss it. This is a request for new permissible values. If there are no concerns about the requested changes we will vote to pass or reject the SCR.
- 3) CCB#50 – Clarify Ambiguous Author Information in Product Document: If there is time remaining we will consider the three questions posed in the Oct. 31 comment.

## Upcoming meetings:

Dec 05 – DDWG telecon (bonus)

Dec 12 – DDWG telecon (regularly scheduled); AGU week Dec 19 – DDWG telecon\* (bonus)

Dec 26 – No meeting

Jan 02 – No meeting

Jan 09 – DDWG telecon (regularly scheduled)

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

## Front-matter/What's new

### 1) Submitted to the CCB:

- CCB#4 – Backwards Incompatibility policies
- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate
- CCB#49 – Suggested Revisit of (new) Section 9J in Standards Reference 2) New issues in GitHub (None)

### 3) Ready for a vote (None)

4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26,

CCB#27, CCB#29, CCB#38, CCB#42, CCB#43, CCB#47.

5) Withdraw by author:

- CCB#33 – Change cardinality of File Area Inventory to allow multiple inventory files for a single collection

**(Discussed)**

Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.

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

- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products Need to form tiger team

- CCB#4 – Backwards Incompatibility policies

Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection

- 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

- CCB#31 – Ensure that dictionary versions are specified in labels

- CCB#35 – Add Alias Index and Acronym Index to the Investigation class

- CCB#36 – Add Mission Phase to the Investigation class

- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class

- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD

- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles

- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers

- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD.

- CCB#45 – Add reference types values for \*-to agency

- 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

- CCB#22 (JIRA-CCB-164) – Display Settings not required for images 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 **(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 **(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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 12 Dec 2024

# DDWG

## Front Matter

No new SCRs this week.

No news on CCB#48 (Add JP2 as an allowed extension in the PDS tool Validate) or CCB#49 (Suggested Revisit of (new) Section 9J in Standards Reference) from the CCB yet.

There were concerns on CCB#4 (Backwards Incompatibility policies). The CCB thought that CCB#3 (Adopt Semantic Versioning with version 2 transition) should be approved first. Confusing. Believe they want examples and clear definitions for CCB#3 before they look at CCB#4.

CCB#33 (Change cardinality of File Area Inventory to allow multiple inventory files for a single collection) has been withdrawn by the author.

# Tier 1 Issues

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

Today we will work on CCB#13. Didn't send out an evote. It was nice to have three weeks off.

Question: Before we vote are there any concerns?

Answer: Yes. No changes since we last spoke.

~ No comments. Changes are in the Requested Changes section. Most recent ones.

~ Three weeks ago.

~ Yes. Let's look. People are confused now.

The issue was that the original proposal had been to implement with both schema and schematron, then the vote was not to do it that way and to primarily use schema and only use schematron to implement the one change of restricting duplicate file names. Need to confirm correct schema/schematron in there... Yes. (opened in Oxygen on shared screen.) ~ It is not clear to someone what schematron rule we are talking about. What is in the SR is unenforceable. Object to the wording.

Question: The wording in the Requested Changes?

Answer: In the Proposed Solution. Also "see enclosure". Not super clear which files are being referred to.

~ In the Proposed Solution.

~ No way to enforce. SR is trying to disallow file names with multiple capitalizations. Validate might catch that.

~ Schematron rule is only done in context of product document area. Can't have duplicate file names there.

Someone suggests we remove the bullet. Not worth time and effort to discuss. It's what's in the SR.

Lots of things in the SR are not testable. The bullet is to outline what is testable... wait... never mind. Will mute, but under Proposed Solution has nothing to do with any changes we would make.

Looking at the Requested Changes - sees that we do need specific links to the enclosures. Will take the action item.

**\*\*Action Item - Joe\*\*** update/provide links to enclosure being referenced.

It's not clear if the concern has been addressed.

~ As long as what we are voting on is clearly stated and factually correct, no objection to voting.

~ The SCR is edited in real-time.

The thing is, the schematron is not enforcing that rule. It simply notifies you that within the label there are duplicate file names.

~ Correct, but it flags it.

~ Yes. Only place that can occur is in document. Only place you can use directory path.

Question: Are people good with that? Any questions people have will be concerns of the CCB, including references to see enclosures. We should just describe it below. Are people happy?

Answer: Sure. At least descriptive of what is in the label. Voting on the policy, so okay. Might move that we remove Item 3.

Another Question: Item 3?

Answer: Number 2 now. That number 3 we already voted to remove.

~ That's a concern. We've held multiple votes.

~ That means the Proposed Solution should have those items removed. We voted to enforce uniqueness rule in the SR, which is not what is being proposed.

~ Editing in real-time.

~ If we re-vote on what's not being done, unsure how to implement the changes.

Question: Would we like to vote on schematron rule to flag multiple instances?

Answer: Yes. Still don't want to do it, can be out voted.

~ Someone would out vote you. It's helpful and done and tested.

Another Question: Does flag just mean issue a warning?

Answer: Yes.

~ Extra processing time without benefit.

~ Another person agrees, but so many iterations of this SCR - just want to finish it.

~ Can respect that, but it's a useful exercise to update the wording we are voting on.

~ Showed text of the error.

~ Could be valid.

~ That's what I have been saying.

~ Should only bring up an error when there is one.

~ It literally looks at the attribute file name and does a count. We could remove it and move on.

Let's vote on the specific rule again. One thing is that if this isn't always an error, it should be a warning.

~ We can change that. Very simple.

Question: Let's vote on if we want to include this rule as a warning. Any Objection?

Answer: (Silence)

**\*\*The Vote on whether to include schematron rule as a warning:**

ATMOS - Yes  
EN - Yes  
GEO - Yes  
IMG - Yes  
IPDA - Not present  
NAIF - Yes  
PPI - Yes  
RMS - No  
RS - Yes  
SBN- Yes\*\*

Will stay in as a warning.

**\*\*The Vote on CCB#13 in it's entirety:**

ATMOS - Yes  
EN - Yes  
GEO - Yes  
IMG - Yes  
IPDA - Not Present  
NAIF - Yes  
PPI - Yes  
RMS - Yes  
RS - Yes  
SBN - Yes\*\*

Thank you. There will be some changes to the descriptions where it says see the enclosure.

**\*\* (Action Item) \*\*** **\*\* Action Item - Ron \*\*** will update the schematron to give a warning instead of an error.

**## CCB#45 - Add reference types values for \*-to agency**

This is a proposal to add \*-to agency from the Editorial Work Group (EDWG). Today we will discuss the list, see if we agree this is the correct list.

~ Should see the bottom of the comment. A question is posed if additional values should be added. It includes a few extra values.

~ Starting with what's there, believe the EDWG asked for instrument and investigation to agency for context products, to indicate which agency owns the instrument or investigation.

~ Someone believes that is correct, for context products. Can discuss this with Jordan, but would assume it's for context.

~ Bundle, documents and collections are beyond that. Don't see use cases for them. Can see use cases for some of the others. Jordan questioned target. Would like to see this limited to context products for now.

~ The list is in the Proposed Solution.

~ Yes, but wonder if that's really what was wanted by the EDWG.

Archiving organization is responsible for the bundle, not the agency.

- ~ Yes, but they are who provides the budget. They are ultimately responsible.
- ~ Explicit in name or archiving agency. Talking about redundancy here.

Question: Where does it say a bundle is from JAXA besides in the LID?

Answer: Don't see a use case for this.

- ~ On target, agree with Jordan. Resource could be a web resource, a website, etc. Will get more information on bundle, document and collection.

Question: Node to agency, where would that go? What is the use case for that?

Answer: We don't have one. It just includes all possible combinations.

- ~ Generic. We do need use cases.
  - ~ Someone thinks the context is covered by the original list.
  - ~ Another person agrees.
  - ~ Don't think we need context to agency. Would like to see any without use cases be removed, so we will remove target and Steve can work on use cases for bundle, collection and document.
- (Action Item - Steve)**

Question: Does anyone want to see use cases for anything else?

Answer: (Silence)

- ~ We'll get use cases or strike them from the list. Once the list is cleaned up we can move on.
- Another Question: What's being removed?
- Answer: Right now, only target.
- ~ Everything else belongs to agencies.
  - ~ Someone is confused about use cases. If we have a bundle and want to know if JAXA owns the bundle, unclear how we would know. Search tools need to harvest the information. Would like to understand the concerns.
  - ~ The question is where information would go and how a user would use it.
  - ~ It would go in the reference list. Original intent of reference list was to be the only place to reference other internal products, but there has been an overhaul. The original intent was to have all references for this product to anything you might want to know about. Will ask for examples and use cases.
  - ~ A bundle belongs to the archive. A PDS bundle belongs to PDS NASA, so bundle should point to PDS.
  - ~ Maybe that helps. If PDS is the responsible agency unclear why PDS wouldn't have a context product.
  - ~ Someone thought it did.
  - ~ Maybe it's supposed to be an external reference. (**Action Item - Steve** will do some research)

Someone sees agency or archive being useful at the archive level.

- ~ No blank to node references.

This has been a good discussion. We will try to clarify.

## **## CCB#50 - Clarify Ambiguous Author Information in Product Document**

Currently there are no Requested Changes in here. The issue is in product document. Two places we can include list author. Nothing in the SR specifies the relationship. If it should be identical or not. This is to clarify that. We should consider what the relationship should be.

There are three questions:

1) Should they contain identical information?

~ Are there any general thoughts? Questions?

Answer: (Silence)

Another Question: Do people need more time to think about this?

Answer: (Silence)

Another Question: Is anyone still there?

Answer: This is for product document.

~ Yes. Specifically for product document.

~ We should pick one.

~ There could be reasons for both, but unsure what is useful.

~ SBN usually has editors list, but that also has a document author list.

~ Reasonable. Can see why it's useful to retain information, but would need to be careful.

---

We are running short on time.

**\*\*Action Item - Everyone\*\*** think of use cases for CCB#50 and what information we can include in the SR.

Question: Any last comments?

Answer: (Silence)

Next week is AGU. We will have a meeting. December 12.

DDWG Notes 2024-12-12

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title: DDWG Notes 2024-12-12

layout: default

date: 2024-12-12

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December 12, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey, J. Blalock, B. Hirsch, L. Huber, S. Hughes, R. Joyner, D. Kahan, D. Kazden, A. Knight, P. Lawton, J. Mafi, S. McLaughlin, E. Schaefer, M. Seritan and M. Tiscareno (\\*'s indicate people who voted during this meeting - if applicable)

## ## DDWG Agenda

(Included in email sent December 10, from J.Mafi, Agenda for December 12, 2024)

We will have a DDWG telecon this Thursday, December 12 at 9:30 PST (12:30 EST, 10:30 MST). In addition, we will discuss the following items:

1) CCB#45 – Add reference types values for \*-to agency: We will continue the discussion about the proposed additional permissible values for this SCR. If needed, we may vote on specifically which permissible values should be included and which should not.

2) CCB#36 – Add Mission Phase to the Investigation class: Please review the previous discussions on this SCR and be ready to discuss.

Upcoming meetings:

Dec 19 – DDWG telecon\* (bonus)

Dec 26 – No meeting

Jan 02 – No meeting

Jan 09 – DDWG telecon (regularly scheduled)

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

Front-matter/What's new

1) Submitted to the CCB:

- CCB#4 – Backwards Incompatibility policies

- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate

- CCB#49 – Suggested Revisit of (new) Section 9J in Standards Reference (approved)

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

2) New issues in GitHub:

- CCB#51 – Add an optional attribute in the Target Identification class to identify Primary/Secondary targets

3) Ready for a vote (None)

4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#27, CCB#29, CCB#38, CCB#42, CCB#43, CCB#47.

5) Withdraw by author (None)

\*\* (Discussed) \*\*



#### Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products Need to form tiger team
- CCB#4 – Backwards Incompatibility policies

#### Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection
- 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
- CCB#31 – Ensure that dictionary versions are specified in labels
- CCB#35 – Add Alias Index and Acronym Index to the Investigation class
- CCB#36 – Add Mission Phase to the Investigation class
- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD
- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles
- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers
- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD.
- CCB#45 – Add reference types values for \*-to agency
- 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
- CCB#22 (JIRA-CCB-164) – Display Settings not required for images 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 **\*\*(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 **\*\*(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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 19 Dec 2024

# DDWG

## Front Matter

There is a new SCR - CCB#51 (Add an optional attribute in the Target Identification class to identify Primary/Secondary targets). The title is pretty self explanatory.

Question: Any brief comments or thoughts?

Answer: If there are multiple targets, they are already able to be put in the label. This is to identify what the primary target of the observation was.

~ Yes.

The CCB approved CCB#49 (Suggested Revisit of (new) Section 9J in Standards Reference).

We have not heard back from the CCB on CCB#48 (Add JP2 as an allowed extension in the PDS tool Validate) yet.

CCB#13 (Ensure file name and directory path name adhere to SR) has been submitted to the CCB.

For CCB#4 (Backwards Incompatibility policies) there are some questions over which SCR should come first, this one or CCB#3 (Adopt Semantic Versioning with version 2 transition). Joe asked the CCB for clarification. Thought they wanted to go to version 2 before CCB#3.

# Tier 1 Issues

## CCB#45 - Add reference types values for \*-to agency

There has been a lot of discussion on this SCR already. This is to add reference types \*-to agency for various contexts in the reference list. Been some late developments. Steve and Jordan discussed reducing this to product to agency or product to node. The SCR was updated.

~ Yes. A lot of discussion. Tried to sort through it all. Interesting that Jordan prefers the most general type of names. Could reduce the long list. Could change the discussion about use at other places in the model. Need to focus on archive, rather than curation. Has been noted in the comments. There was a question about use cases so tried to include four use cases.

~ Not use cases. No body would search that way. Those are not use cases at all.

Question: Confused. Why wouldn't someone search on node?

Answer: Someone asked a question twice. Haven't addressed it.

~ Gave four general use cases.

~ General, but not useful here.

~ Unclear. Saying people would want to know what node could be useful, but this is worse - agency, like NASA.

~ Proposed node and agency.

~ Node is not in the SCR.

~ It is there. It's been updated.

We are talking about provenance. Added node and agency. Generic. Proposing node and which agency it's a part of to make it more specific for context and bundle and for context products to have agency.

~ Someone can't conceive of anyone searching on a node.

Question: What if it was a facet of search with additional constraints?

Answer: There is no reason to go below bundle.

~ Now we are on the same page, but Jordan was talking about collection. We can discuss that. Talking about the long term provenance for the archive. That's what the DDWG was created for.

~ Not disputing that agency should be in here, but don't think this is the level for it. If faceted search there's no reason to go below bundle.

Another Question: What if someone wants to add a collection to a bundle from another node?

Another Question: A secondary?

Answer: Could be primary.

~ If it's a member of the bundle, who cares.

We should talk to Jordan. He suggested collection. The question is if people search for collections.

~ Someone thinks people do both.

All things proposed, don't see an argument for bundle to agency, but do for node to agency.

Investigations and nodes belong to an agency.

~ If we had an ontology that correctly represented what we have, I would agree with you, but we're really talking about search and a way to help our programmers. Should keep it simple. Can use node. Agency is also useful information that we can tag. Basically, agree, but not sure we're up to that.

Another comment is that we already can indicate the current node with the citation area. Node can be a contributor. Unsure why we can't use that instead of adding something new to the reference list, which often seem vague.

~ Entity responsible for the archive, seems like the purpose and meaning in that area is different than what's going on here.

~ This is an instance where we could end up with two ways to interpret which is correct way to include the information. Might need to take out of citation information or better define the difference.

~ Good point. Original was only a reference list. Big list. Hopefully reference types helped things make more sense. It evolved over time. Still working on the ontology. Haven't clearly defined all the relationships. Use reference list and the software people harvest it out. Reference list is kind of a catch all.

Question: What is the next step? Does this go at the bundle or collection level? Is this required?

Yes, it would be required for context products.

Answer: Need more discussion on that.

~ We don't need agency to target because NASA doesn't own the moon. Whatever we do should be elegant and permanent. SCR needs some editing still.

~ Someone is arguing for both product and bundle. Should both require product to node and product to agency.

~ Drop collection.

~ Generic. Can be required in bundle and collection products.

~ At least consistent.

We have a whole structure in citation area that includes RORIDs. A rich metadata structure. One advantage to consider.

- ~ Someone agrees. Could be fixed so reference list includes additional information too. Open to that.
- ~ Think brought up in context of this SCR. Questioning if we need context products for nodes/agencies. Could use RORIDs.
- ~ We already have context products for nodes and agency.
- ~ Internal references.
- ~ Also, at some point, someone should look at data curator type, re-word the description. Sounds more like archiving. Probably another SCR.
- ~ Agree. Wearing a long term preservation hat. Curation is to make it most useful now. Different focus.
- ~ Yes. Seems like a conventional distinction.

It seems like to move forward we need to decide if we are ready to vote or if people need to consider what levels they want.

- ~ Someone is unsure if it should be bundle, collection or both. Need to resolve that. Could do a straw-man.

Question: Could it be required at the bundle and optional at the collection level? Do we need consistency? Can we assume inheritance?

Answer: Probably the ontology will take care of all this. Need to tag it for now. Not sure inheritance is worth it now without formal ontology where this is all defined.

- ~ We need it now for the interface.
- ~ Node is different from agency. One does the work of archiving and one is more general funding structure.

Question: Confusing. What needs to be resolved to move forward?

Answer: Bundle versus collection and what list.

- ~ That makes sense.

Another Question: Are there any other concerns? Things that need to be resolved? Would like to come back to this next week and hold some straw-mans. Any other issues to consider?

Answer: Someone just added a comment. We might want to consider archiving entity instead of node.

- ~ We have context products for nodes.
- ~ Someone likes the idea of not going with node, but will go with the group.

Question: Any other thoughts on this?

Answer: (Silence)

- ~ We will discuss this again next week.

## ## CCB#36 - Add Mission Phase to the Investigation class

There has been a lot of discussion on this one. Have some questions about it. My impression is that this may be an attempt to bring mission phase into a more user orientated place, at least into a context product.

- ~ Yes, exactly. Trying to make mission phase a first class object in the model. It would exist in the investigation class.
- ~ Previously thought this would get rid of the information in the LDDs, but could still use LDD to validate the information.

~ This wouldn't preclude the use of LDD, but concern would be which is the master copy of the information.

Question: Concerned. Know how validate works with schema and schematron. How would it work with context products?

~ Answer: Not my area, unsure, but if we define an ontology and turn it into a formal object people can validate. Not sure how that works.

~ Someone thinks mission LDD is the correct place for the information.

~ Interesting. Maybe we should talk to the system people. Needs to be a single master copy.

~ It's in the repository. It's what validate uses.

~ It would need to be in a context product.

Question: Thoughts?

Answer: We decided that context products would not have a lot of information and they would be the connective tissue. It's why we put the information in LDDs. This is going backwards. Like PDS3 did, just throwing in another keyword. Master copy already exists in Mission LDD. The EDWG seems to be driving the bus now instead of us. They can populate the website without it.

~ Someone agrees, but for mission phase populated LDDs the question is why that information can't go in the context products.

Another Question: You're the one who always says duplicate information is bad. Want pointers to LDD?

Answer: Interesting. Could make LDD a class in the context product to have it managed in the system.

~ Horrible.

~ Unclear what is being suggested.

~ Both have to exist.

~ We decided context products wouldn't have a lot of information.

~ Context products could have external reference.

~ Someone could live with that, but EDWG is trying to drive the bus.

~ Modeling people drive the bus. Need to make the connections. The model drives the system. Need to capture the information the system needs.

Phase names for missions, and start and stop times are useful information. LDDs may be part of the archive, but not very useful. Sees this as a potential way to provide the information in a more user friendly way of doing so, but LDD would be the official version. If they don't match, validate should throw an error or flag.

~ That makes sense.

~ We can write rules to get values to match. Think the process already exists. The advantage of keeping it in the LDDs.

Question: Other thoughts?

Answer: Thank you for discussing these SCRs.

~ They seemed ready to address. More next time.

~ We should move forward.

~ People should post comments on discussion today.

Creating a reference class to an LDD to hopefully make this possibly work.

~ Context products would have to reference LDDs.

- ~ Not good practice.
- ~ Someone can see uses for it, but context products might not be the best place.
- ~ Making mission LDDs more visible is a better use of our time.
- ~ As a member of the EDWG, will bring this all up at the next meeting.
- ~ This person has been listening in - not liking how they want to co-opt context products to populate web pages.
- ~ EDWG member agrees.
- ~ Another person is concerned for the system. Our context products would be holding the ontology.

Our time is up. We will discuss this again in the future.

## DDWG Notes 2024-12-19

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title: DDWG Notes 2024-12-19

layout: default

date: 2024-12-19

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December 19, 2024

Notes by Debra Kazden

Known Attendees: A. Bailey\\*, J. Blalock\\*, B. Hirsch\\*, L. Huber\\*, S. Hughes\\*, R. Joyner, D. Kahan\\*, D. Kazden, P. Lawton, J. Mafi\\*, S. McLaughlin, J. Padams, E. Schaefer\\*, M. Seritan and M. Tiscareno\\* (\\*'s indicate people who voted during this meeting - if applicable)

### ## DDWG Agenda

(Included in email sent December 18, from J.Mafi, Agenda for December 19, 2024)

We will have a DDWG telecon this Thursday, December 19 at 9:30 PST (12:30 EST, 10:30 MST). In addition, we will discuss the following items:

1) CCB#45 – Add reference types values for \*-to agency: We will discuss and vote on the following questions with regards to this SCR:

a) Use “node” or “archiving agency” in the keyword?

b) Use a generic value “product to agency” or specific values “bundle to agency”, “collection to agency”, etc.?

c) Should the full list of proposed “from” products be included or should some of the proposed values be removed from the permissible values list (e.g. only include context product specific values)? [This only applies if the non-generic option was chosen for question “b”.]

2) CCB#31 – Ensure that dictionary versions are specified in labels: Please review the previous discussions on this SCR and be ready to discuss. In particular, we will discuss the questions that Matt had in his Dec. 11 comment regarding how to update the SR.

### Upcoming meetings:

Dec 19 – DDWG telecon\* (bonus)

Dec 26 – No meeting

Jan 02 – No meeting

Jan 09 – DDWG telecon (regularly scheduled)

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

### Front-matter/What's new

1) Submitted to the CCB:

- CCB#4 – Backwards Incompatibility policies

- CCB#48 – Add JP2 as an allowed extension in the PDS tool Validate

- CCB#49 – Suggested Revisit of (new) Section 9J in Standards Reference

- CCB#13 – Ensure file name and directory path name adhere to SR 2) New issues in GitHub (None)

3) Ready for a vote (None)

4) Build 15.0 beta testing: 10/24/2024 - 11/14/2024. The following SCRs are queued for implementation: CCB#7, CCB#10, CCB#15, CCB#16, CCB#18, CCB#19, CCB#24, CCB#26, CCB#27, CCB#29, CCB#38, CCB#42, CCB#43, CCB#47.

5) Withdraw by author (None)

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

#### Tier 1 issues

- CCB#3 – Adopt Semantic Versioning with version 2 transition The CCB returned this, requesting that it be resubmitted as part specific proposal to transition to IM V2.0.0.
- CCB#13 – Ensure file name and directory path name adhere to SR
- CCB#20 (JIRA-CCB-358) – Instrument Package Context Products Need to form tiger team
- CCB#4 – Backwards Incompatibility policies

#### Presentation: Backwards Compatibility

- CCB#46 – Disallow multiple versions of the same LID from occurring in a single collection
- 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
- CCB#31 – Ensure that dictionary versions are specified in labels
- CCB#35 – Add Alias Index and Acronym Index to the Investigation class
- CCB#36 – Add Mission Phase to the Investigation class
- CCB#37 – Add List Author, List Editor, and List Contributor to the Modification Detail class
- CCB#39 – Fixed problem where LDDTool does not include all rules from IngestLDD
- CCB#40 – Change cardinality in Product Bundle to better support PDS3/4 hybrid bundles
- CCB#41 – Create a way for classes or attributes to be exposed to other LDDs but not to data providers
- CCB#44 – Issues caused by the failure to expose pds: attributes that are referenced in an LDD.
- CCB#45 – Add reference types values for \*-to agency
- 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
- CCB#22 (JIRA-CCB-164) – Display Settings not required for images 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 **\*\*(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!

- 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://github.com/NASA-PDS/PDS4-CCB/tree/main/data>

Backup: <https://nasa-pds.atlassian.net/jira/software/c/projects/CCB/issues> (limited seats)

Next meeting: 9 Jan 2025



# DDWG

## Front Matter

A number of SCRs have been submitted to the CCB. No updates from them yet. Had asked them for clarification on CCB#3 (Adopt Semantic Versioning with version 2 transition) and CCB#4 (Backwards Incompatibility policies). Hopefully we will hear from them and be able to proceed after the break.

No new SCRs.

# Tier 1 Issues

## CCB#45 – Add reference types values for \*-to agency

We discussed this last week. There are a few questions to resolve. There was some discussion online. Today we will discuss the approach we are tending towards. The first item is to use archive or node. After the first week it seemed like we were leaning towards node because it is already defined in a context product.

Question: Any comments?

Answer: Someone added a comment in GitHub. Spoke to Jordan. He prefers generic to specific. He is the requester for this. He wants product. Could be agency or node. It doesn't need to be specific.

~ Both are already required in the system context products.

~ Can point to either.

~ Could be product organization.

~ Product to agency or product to node already exist.

Question: Additional thoughts?

Answered with Another Question: What about additional issues?

Answer: On bundle versus collection, want to make the point that allowing this at the collection level reduces system overload. Inheritance could be problem if inherit something that's not true. Also, regarding list author, it seems designed for a very specific set of requirements. Seems very PDS3.

~ PDS3 had a lot of internal conflicting ways to do things, but agrees. There is a distinction between archiving and curation, so not advocating against list author.

~ Good point. If the focus of this is for archive, then it addresses what Jordan is asking for.

Requested Changes includes the options - product to agency and product to node.

~ We need to clean up the Requested Changes. Then we can probably get this through.

There are three approaches:

Approach 1 - Product to agency

Approach 2 - Product to agency and node Approach 3 - A big specialized list

\*\*The Vote for an approach:

ATMOS - 2

EN - 2  
GEO - 2  
IMG - 2  
IPDA - Not Present  
NAIF - 2  
PPI - 2  
RMS - 2  
RS - 2  
SBN - 2\*\*

Looks like 2 is the approach.

Question: The next question is where this would apply. Would be a weird restriction since it's going in the reference list. Would have to be a schematron. Is this something we want to do? To force it to only be used in specific contexts?

Answered with Another Question: To restrict use to only collections and bundles?

Answer: Think so.

Another Question: Are there restrictions on reference types that can be used for the reference list?

Answer: Schematron rules written against a few things. Product context is only product type.

~ Confusion.

~ If in product context, then if bundle, collection, then it would be allowed.

~ Someone thinks there's a clear reason to have it in context products. The real question is if it's useful to have it in bundle or collection product.

~ This would be used for collection for context, for NASA or ESA.

Question: Using product to agency or product to node will go in the enumerated list for context products. Do they need to go in others?

Answered with Another Question: Why wouldn't you be allowed to do it?

Answer: Someone changed the Proposed Solution and Requested Changes for every product type. If we are not going to limit that we need to update the SCR.

~ The question is if we need to constrain this.

~ And if so, where. It only seems relevant at bundle and possibly collection level. Unsure what the use case is for having it there. In terms of finding it, shouldn't matter. The question is if we need to restrict where the values will be allowed. Limit to context or generically allow everywhere.

~ Ask that again.

Question: Right now, we have two keywords - product to agency and product to node. The schematron rule currently doesn't restrict their use. What restrictions, if any, do we want? Only in context products? Only in bundle or collection or everywhere?

Answer: We need a rule that if node than agency is NASA. Think should be all products, not do it piecemeal. No restrictions. Should be required, not just allowed.

~ Someone disagrees. Wouldn't personally put it below collection.

Another Question: What's the point of it?

Answer: Think the whole reason to add this is basically ticking a box.

~ If people want to search with this we need it.

~ A ridiculous search.

This is a major backwards incompatible change. Would need to hear from EN on who they see as

doing this kind of search.

- ~ Don't think Jordan would require it for all products, but think if it's required for collections it should be all collections. If required for bundles, it should be all bundles. Context for all context.
- ~ This is new. Not even required to have a reference list at this point. Would make a required instance.
- ~ That depends on how the schematron now is written, but yes, reference list is currently optional.
- ~ This would make it required.
- ~ From a modeling point of view no problem with that as long as we have a schematron rule.
- ~ Feels more controlled for context products, but bundles, collections all over the place and don't see a strong reason to retrofit bundles or collections.
- ~ Someone agrees.
- ~ Reference list is required for product native.

Jordan is typing in the chat. (See below)

Question: Should this be in citation information? Could be useful for citation and DOIs. Could split this into two SCRs. That's sort of what another person suggested with distinction between archiving and curation. Maybe that information belongs in citation information. Brand new use for the reference list. Very specific use for this.

Answer: That's okay, but currently no internal references in citation information.

- ~ Fair point.
- ~ As long as we can include references in citation information okay.
- ~ Someone thought we would add a new enumerated value for citation information.
- ~ Right, but he makes a good point that it would be nice to capture the reference in the citation information. But providing internal reference makes it a reference to a very specific entity.
- ~ Agrees, but not sure we need an internal reference. We have ORCIDs, although nodes don't have individual ones. Could include a link to the context page.
- ~ If add internal reference to organization would solve it. But a bigger issue is the PDS ontology. Need to LID, LIDVID.
- ~ That would be one addition for organization.

We need to think about this since we're talking about making major updates.

Question: Any last thoughts?

Answer: (Silence)

## CCB#31 - Ensure that dictionary versions are specified in labels

There were some questions on this. Discussion sounded like we do have ways to indicate which schema/schematron were used, but nothing in the SR.

- ~ Someone looked at the SR, section 6.B Namespace. Nothing about the formation of what actually goes into a label. Has example of LDD, but there's some confusion over the v1 at the end.
- ~ Think it's the version of the dictionary.
- ~ That's not documented anywhere. Another example has version of Common IM, not of LDD. Lots of confusion. Different examples are all different. Hard to know what's common or best practice.
- ~ V1 is version of the namespace. Literally. Believe in next version of PDS those will be v2. The online, specific version of the LDD. Best practice would be to keep all versions at the level of the IM.

~ Part of the issue is that different LDDs list different versions because we changed the best practices mid-stream.

~ True. Can see if you look at back versions for Display LDD versus the Cassini LDD.

Question: Okay. So, the question is if the current practice is fine, using SSI schema location, but not in SR at all. What should we write in the SR?

Answer: Great thing to discuss. Schema location is a hint for where things might be. (Note-taker missed last part of this statement.) ~ We allow it to not be specified.

~ This wouldn't be a big deal without all the backwards incompatible things. Important for archive to document the version.

~ The question is on the exact language for the SR to make this official.

First, go to section 3 of SR page 18. Says in order for a label to comply...blah, blah...

~ Ah!

~ This could be expanded.

~ This is awesome. Hadn't found this with search.

~ A lot about schema location in DPH.

~ We could add schema location to the fourth bullet.

~ The one that says IM version can also be expanded.

~ Looking at the label, it's reference schema that's in schema location.

~ Yes. Should update the two bullets.

~ Someone is taking some notes.

**\*\*Action Item - Ron\*\*** will go over this with **\*\*Matt\*\***. He missed the schema location wars back in the day.

~ We might want to update 6B too.

~ Someone agrees.

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Our time is up.

Question: Any last thoughts?

Answer: (Silence)

Next meeting January 9, 2025

# Meeting Chat

Benjamin Hirsch has temporarily joined the chat. Benjamin Hirsch has temporarily joined the chat.

Link <https://pds.nasa.gov/datastandards/doc> ... by Schaefer, Ethan Schaefer, Ethan 9:52

AM [https://pds.nasa.gov/datastandards/documents/dd/current/PDS4\\_PDS\\_DD\\_1M00/webhelp/all/\\*ch05s755.html\\*N1188933686](https://pds.nasa.gov/datastandards/documents/dd/current/PDS4_PDS_DD_1M00/webhelp/all/*ch05s755.html*N1188933686)

Padams, Jordan H (US 398A) has temporarily joined the chat.

Padams, Jordan H (US 398A) has temporarily joined the chat.

Should this be something in citation inform... by Padams, Jordan H (US 398A) Padams, Jordan H (US 398A) 10:02 AM Should this be something in citation information? Since it is so tightly coupled to

organizations? And this information is useful for citation... by Padams, Jordan H (US 398A)Padams, Jordan H (US 398A)10:02 AMAnd this information is useful for citations and DOIs. I cannot speak on the phone... just commentin by Padams, Jordan H (US 398A)Padams, Jordan H (US 398A)10:02 AMI cannot speak on the phone... just commenting Can we split this out to 2 SCRs? by Padams, Jordan H (US 398A)Padams, Jordan H (US 398A)10:04 AMCan we split this out to 2 SCRs? by Padams, Jordan H (US 398A)Padams, Jordan H (US 398A)10:04 AMCan we split this out to 2 SCRs? The problem with orcid or the current citat... by Padams, Jordan H (US 398A)Padams, Jordan H (US 398A)10:10 AMThe problem with orcid or the current citation information is uncontrolled vocabulary. Begin Reference, The problem with orcid or ... by Schaefer, EthanSchaefer, Ethan10:11 AM Padams, Jordan H (US 398A)12/19/2024, 10:10 AMThe problem with orcid or the current citation information is uncontrolled vocabulary. Can you define "uncontrolled vocabulary"? Version of the namespace by Padams, Jordan H (US 398A)Padams, Jordan H (US 398A)10:15 AMVersion of the namespace Lyle Huber no longer has access to the chat.Lyle Huber no longer has access to the chat.Blalock, John J no longer has access to the chat. Blalock, John J no longer has access to the chat. Benjamin Hirsch no longer has access to the chat. Benjamin Hirsch 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. 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.Pat Lawton (Guest) no longer has access to the chat. Joe Mafi (Guest) no longer has access to the chat. Debra Kazden (Guest) no longer has access to the chat. Section 3 of the Standards Reference Mentio... by Matthew Tiscareno