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title: DDWG Notes 2016-06-23

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June 23, 2016

Notes by Debra Kazden

Known Attendees:

R. Chen, M. Gordon, E. Guinness, S.Hardman, L. Huber, R. Joyner, D. Kazden, J. Mafi, S. McLaughlin, L. Nagdimunov, J. Padams, A. Raugh, R. Simpson and J. Stone

Meeting Agenda and Summary

1) SCRs and Issues to Discuss:

-- CCB--77: Augment Product Update with File Area Update - S.Hughes

   -- Open: under DDWG discussion

   -- has been TA'd

   -- 20141002: There is now a tiger to work Update in general that will start in a few months

   -- 20150519: Waiting for M.Gordon ?

   -- 20150922: DDWG discussion topic; SCR needs to be updated by Mitch

   -- 20160324: Mitch prefers to supersede this SCR and add new SCR

   (Not Discussed)

-- CCB-125: The bit mask attribute seems to be misplaced and possibly missing where needed (A.Raugh)

    -- 20150915: Open; needs DDWG discussion

    -- 20151008: Jordan to provide example label that uses bit mask

    -- 20160323: WG: J.Padams, R.Simpson, A.Raugh, R.Joyner

    -- 20160617: updates discussed by DDWG

  (Not Discussed)

-- CCB-131: Missing constraint on Special Constants attributes (A.Raugh)

    -- 20150922: Open

    -- 20160223: under DDWG discussion

    -- 20160322: EN governance; will take lead

  (Not Discussed)

-- CCB-133: Special Constants class precludes the ability to specify multiple invalid/missing constants (J. Padams)

    -- 20151012: Open

    -- 20151021: Under DDWG review

    -- 20151022: WG -- Jordan, Steve and RJ; sent email to WG with proposed changes

    -- 20151105: Jordan -- special constants needs to be specified per "band" not per "axes"

  (Not Discussed)

-- CCB-138: Mismatch between context object types and values of type in Observing System Component class (A.Raugh)

    -- 20151202: Open; under DDWG review

    -- 20151203: WG: Anne, Steve, Dick, Jordan, and RJ

    -- 20160310: until someone volunteers to lead the effort -- on hold

  (Not Discussed)

-- CCB-142: Create Data Quality Flags to hold metadata on Quality Flags (E.Shaya)

    -- 20151229: Open;

    -- 20160126: Under DDWG review

    -- 20160322: Ed didn't like Simpson's CCB-142 implementation

        -- Ed wants a lot of specifics embedded into XML

-- Simpson trying to figure out how to make it 'simpler'

-- 20160323: Simpson generated presentation for DDWG review / comment

-- tabled until next session (20160410)

-- 20160428: updates discussed by DDWG

-- requires IMG & others expertise to carry forward

-- 20160505: discussed by DDWG; E.Shaya led discussion; 2 competing implementations

-- address 2 issues:

-- bang for buck in terms of worth doing

-- implementation recommendation

-- WG: Steve, Anne, Jordan & Chris, Lev

(Not Discussed)

-- CCB-149: Should PDS4 allow packed data? (E.Shaya)

-- 20160309: Open & Under DDWG review

-- 20160310: Sent email to E.Shaya asking that he upload his version of the IM for packet data to JIRA

-- DDWG will review and provide comments

-- PPI has volunteered to attempt to convert a PDS3 product using the Packed Data class

-- 20160322: dependency on CCB-153; and vice-versa

-- 20160428: sent email to J.Mafi for status on providing examples

(Not Discussed)

-- CCB-151: Bundle Member Entry and Internal Reference do not require either LID or LIDVID. (A.Raugh)

-- 20160309: Open & Under DDWG review

-- 20160322: EN governance; will take lead

(Not Discussed)

-- CCB-153: SR Needs Additional Description of Packed Data Fields. (E.Shaya)

-- 20160321: Open

-- 20160322: dependency on CCB-149; and vice-versa

(Not Discussed)

-- CCB-154: Promote a Mission Information class to Discipline Governance Level. (S.Hughes)

-- 20160321: Open & Under DDWG review

-- 20160428: updates discussed by DDWG

    -- formed WG: Steve, Anne, Jordan, Joe

-- 20160512: emailed Steve asking if the WG had met and is SCR ready to go back to DDWG for discussion?

-- 20160615: emailed Steve asking if the WG had met to resolve issue

(Not Discussed)

-- CCB-155: Need "Example Set" to include program test data. (A.Raugh)

  -- 20160323: came from discussion of CCB-144

  -- 20160323: Open; request to provide additional examples; to include 'test data'

  (Not Discussed)

-- CCB-156: Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al. (A.Raugh)

  -- 20160418: Open

  -- 20160623: Under DDWG review

  (Brief Discussion)

-- CCB-159: Bug fixes for Version 1.7.0.0. (J.Hughes)

  -- 20160426: Open & Under DDWG review

  (Not Discussed)

-- CCB-162: Move <md5 checksum> from Object Statistics to Array (R.Simpson)

    -- 20160622: Open & Under DDWG review

      -- emailed Steve to TA

  (Brief Discussion)

-- CCB-163: Correct the Instrument.Type enumerated list (L.Huber)

    -- 20160622: Open & Under DDWG review

      -- emailed Steve to TA

  (Discussed)

Notice sent before the telecon in email from R. Joyner - June 22, 2016 See enclosures:

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

CCB/SCR Statuses:

-- CCB-152: field format definition mismatch between IM and SR. (L.Nagdimunov)

    -- 20160616: Ready; sent to CCB (as requires IM change)

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

Please review and be prepared to discuss and possibly vote:

-- CCB-163: Correct the Instrument.Type enumerated list (L.Huber)

    -- 20160622: Open & Under DDWG review

-- CCB-162: Move <md5 checksum> from Object Statistics to Array (R.Simpson)

    -- 20160622: Open & Under DDWG review

-- CCB-155: Need "Example Set" to include program test data. (A.Raugh)

    -- 20160323: came from discussion of CCB-144

    -- 20160323: Open; request to provide additional examples; to include "test data"

        -- PPI will provide ARRAY example

        -- request for color RGB image; check if IMG can provide

-- CCB-156: Inconsistent Discipline Dictionary Technique for Local Internal Reference, et al. (A.Raugh)

    -- 20160418: Open

    -- 20160623: Under DDWG review Exposing elements in the PDS4 Common XSD (S.Hughes)

    -- Discussion on elements to be exposed

    -- review emails from Steve: Exposing elements in the PDS4 Common XSD

    -- Scheduled to be implemented in development version of IM; possibly v1710 ?

SETI Issues (M.Gordon, et al)

    -- Reconciling Local Data Dictionary Versions with New System Builds

    -- Use of XML Catalog files in archived bundles (see attachment for discussion points)

DDWG Telecon

(Note-Taker joined meeting in progress)

CCB-163: Correct the Instrument.Type enumerated list See https://pds-jira.jpl.nasa.gov/browse/CCB-163

Question: Where in our documentation does it say that type must be enumerated?

Answer: Not sure that it does.

~ Carry over from PDS3. Conceptual domain attribute - could be type or text. Maybe type-node. Lots of things to define attribute. Need complete definition in SCR.

~ Yes, but didn't agree if subtype must be enumerated.

~ Someone thought it would be free text.

Question: Is this the only issue? Can we vote on the name?

Answer: Okay with that.

**The Vote - subtype or subtype-note

ATMOS - Subtype

EN - Subtype

IMG - Subtype

GEO - Subtype, but likes subtype-name

PPI - Subtype

SBN - Subtype-note

RS - Subtype-note

Rings - Subtype- note**

There were really three options.

Question: Free form text field?

Answer: Yes, the issue is that some people are uncomfortable with free form that ends with type.

**Another Vote - Subtype or Other

Rings - Other

RS - Other

SBN - Other

PPI - Other, likes type-note

GEO - Subtype

IMG - Subtype

EN - Subtype

ATMOS - Subtype**

Equal tie. Four to four.

Leave it as subtype. If the CCB complains we will change it.

~ Put a note in the SCR that there was some dissension.

So, the comments will be incorporated regarding cardinality. **(Action Item - Lyle)** ~ Yes, and will include the proper definition for subtype.

Action Item - Everyone needs to review it for next week.

It will be TAed. There's still the issue with regolith.

~ There's a thing called the internet.

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

Someone doesn't want to discuss this.

~ It's low priority and impact.

Hold on - there's a backwards compatibility issue if this is being removed from object statistics.

~ Not sure anyone has used it yet.

Question: Has IMG used this yet?

Answer: Using it - can change.

CCB-155 - Need "Example Set" to include program test data See https://pds-jira.jpl.nasa.gov/browse/CCB-155

We can hold off on this one.

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

Question: Does anyone need an explanation of the issue?

Answer: A two minute review.

Formerly, the common namespace referenced namespace - core class used to be at top level - local internal reference in core - in LDDs - name local in reference. Problem for schematron rules. The SCR wants to expose local internal reference as an element to get everything in the same namespace. Questions about rules on how LDDs reference key classes. Need to make sure we have consistent ways for doing things.

If we don't go with exposing in common, would stick with what we do now, so LDD tool would need to be changed. Hand edit now.

It's probably worth thinking about this for consistency.

Given that Steve is not here, that was probably a good introduction for the future.

SETI Issues

Ron sent the full spreadsheet that was captured at SETI. It was vetted against Debbie's notes. (See email from Ron Joyner, Summary of SETI Issues, sent June 16, 2016)

There are two primary issues. The first is how to reconcile LDD versions against the IM builds.

~ It's a two step process. Someone is working on a really solid long term solution. In the short term we could use adequate bandaids. Could clean up and remove the scars later.

Want distinction between discipline and mission LDDs. For discipline LDDS, because of the current set up, there's no way to ensure they are compatible with IM builds. What underlies this is out of our control because we allow non-backwards compatible changes to common. For IM 1.6 we need compatible discipline LDDs. This is possible one of two ways. Verification - run LDD tool against ingest with IM as criterion. Prefers to put it in Oxygen and see if it throws up. Need to be able to show EN that it's compatible. Bandaid is to produce updated LDD - no changes - but increment the the minor number to show it works with 1.6. So, some LDDs would be the same - just would have different version numbers. Not a lot of work, but but had said that incrementing IM shouldn't require an increment to discipline LDDs. Think we should have file names with an IM and LDD version number. Helps make obvious which to use.

(A moment of silence)

Question: Unclear. Let's say you have an LDD you wrote for 1.5 - and there are no changes for 1.6. Now you name it for 1.6 so users know it's okay for both?

Answer: Say 1.2 is compatible with 1.5. Make an exact copy - change version to 1.3 to be compatible with 1.6. Could have a note to say what version it's compatible with. Would also have slightly different file names, even though basically identical - just different file names.

~ Not good practice.

~ Agrees, but it's a way forward until we can fix the non-backwards compatibility issue.

Someone has issues with this. Don't think it's a best practice. If nothing has changed then nothing should change.

Question: Anyone else?

Answered with a Question: Reflecting my complete lack of knowledge on LDDs, you said there were two approaches - are they the bandaid and rerun LDD tool?

Answer: Second way is LDD temporarily ingested in IM - then EN regenerates it using their tools. Thinks this reorganizes how things are displayed at EN, but nodes wouldn't have to make changes. Unsure if the system can do this. Unfortunately, Steve is not here. Admits the solution is far from elegant. Looking forward to a good long term solution. Need a bandaid of some sort.

~ Unclear.

~ Don't see tent poles in the IM in fall or spring next year. Maybe next fall.

Someone is unsure.

~ Until we have a good solution we need an interim solution. Thinks the minimum time to use bandaids is one year to a year and an half.

~ Someone is not sure they agree. There are decisions we could make to make it faster. Unfortunately, it would require lots of work from the group. Don't see it happening on telecons or at Fall F2F. Would be too late anyway. Unless significant changes, can't accomplish it.

Question: So, we need a bandaid and what?

Answered with Another Question: Why do we need a bandaid? Limping along now, annoying, but do-able. Not sure a proliferation of LDDs that exist is a good idea.

~ For new DPs, we want to be able to say what LDDs are compatible with the IM. Maybe we just need a table.

~ We need a better definition of compatible. Local internal reference is the only thing that changes. Can use old schemas - can use or not use - nothing invalidates LDDs. Not a compatibility issue - more of an

application usage issue. An implementation issue. Been working with missions - explain this to them, and it's fine. They don't obsess over version numbers. Not sure why we need to fix this.

Question: So, if they have multiple IMs and get notices and warnings, you tell them to ignore it?

Answer: I tell them to check once - then move on.

~ Someone thinks it's interesting that they are told we know it's an issue and they are told to ignore it. Would like for people to get no errors in Oxygen or validation. Hand inspection would be all you could do.

~ The validate tool only reads the namespace - a real error. In Oxygen it's an informational message. Perfectly valid. PDS says it's not valid because the system is bigger. Would get validation error due to schema version, but not really an invalid situation.

Question: How do people feel about this?

Answer: Agrees. No bandaid - just understand and explain. Important that a bandaid delays a real solution. Changes standards unnecessarily.

~ Might be a skewed sample, but in my experience, don't see a need.

Question: Anyone else? Seems at the SETI meeting we had a different position.

Answer: Had less experience then.

~ That's my point - When we started, we knew nothing. As we went along we got more experience. Early decisions coming back to bite us. If this is a non-issue we need to decide what we do want to tackle.

~ Being able to associate LDD version with IM is an issue. We need to be able to cross reference and bandaids get the information into file names - might be sufficient for now, but still not a compatibility issue. LDDS are pretty compatible with the core DD now. That's good.

Question: So is there a document on how to teach this?

Answer: Usually part of teaching how to use an XML editor. That's where you see this first. It's conversational, not as formal as it could be.

Question: How do people feel about adopting the ignorance is bliss philosophy?

Answer: The limp along philosophy.

~ Limp along with no bandaid - just an open wound.

There's still the issue of catalog files, but would like to know what people want to focus on from the SETI issues.

~ Someone is not sure. We could always have better tools.

There's something I want to discuss - stop me if pointless, but I am confused by the notion that the implementation of the IM is the standard. The standard is always the document that describes it - not the implementation. Was reviewing notes... (Interrupted)

Question: Have we switched topics?

Answer: Thought we were asked if there's something else to discuss.

~ Meant about SETI issues. Would like to discuss catalog files. That was a SETI issue.

~ This can be brought up again.

Question: So, where are we on catalog files?

Answer: There are two views. One is that there should never be a catalog file in an archive bundle. SchemaLocation to point to LDDs in EN repository or at own node. So far, no one is doing this. Everyone is conforming. One would hope to never see a catalog file in an archive bundle. Would like to formalize that.

~ Same opinion on catalog file and SchemaLocation - neither will work when files are downloaded from the archive. Important thing is namespace URI - really only thing that would tell where to find the namespace. Catalog files and SchemaLocation are both unimportant.

~ Someone sees that in one of previous speakers labels - sees URL SchemaLocation.

~ It may look like that, but not on the internet. It makes files transportable on own system. Not a URL reference.

Mitch needs to hang up soon.

Someone agrees that SchemaLocation is a hint at best. PDS should require there be no catalog files in the archive. We should be able to resolve every reference in a bundle without a catalog file so no need for catalog files.

~ Functionally, people are on the same page.

~ There's a subtlety here. In order to resolve and find the bundle only namespace URI will get you there. So, if we want the archive to be self contained the definition of the namespace has to be accessible in the deep archive. Somehow catalog files and SchemaLocation don't get you there. Need to think in worst case scenario. If PDS didn't exist, information would have to be in the deep archive. Worth thinking about - things we have to do when writing LDDs, bundles, etc., and getting stuff out of the deep archive.

XML schema directory. Just to have schema. If PDS goes away, not everyone is putting that directory there, but it's there so you can get to the schemas if PDS goes away.

~ Gives DPs a chance to archive copies they may have tweaked as an official copy. Would like to see a schema bundle from EN that is official. That would guarantee consistency.

~ Thought schema collection was secondary. Just included LIDVIDs.

~ That's fine, if those are archived.

Question: Do we have a LIDVID for the DD?

Answer: Would expect that we should.

~ The schemas are not registered yet.

~ Looking for registry and search services for context objects and schemas. Waiting for that interface at EN.

So, if the point of having XML schema directory is if PDS goes down - then pointing to a copy elsewhere doesn't solve it. But agrees, there should be a real, official copy - not in your individual bundle.

~ There will be an official copy.

Question: What's the problem with just giving the LIDs? What does that solve?

Answer: It might get you to the specific namespace the labels are designed against.

~ Still, not sure what problem this is solving.

~ Someone is unclear on the question.

Question: In XML schema directory, in collection, in data bundles, you have XML collection in the data bundle, so, don't understand the point of this. All the labels also have that. What's the point?

Answer: The point was to provide completeness. Could provide all schemas also mission LDD for missions with that.

~ Someone is not sure how this provides completeness.

~ Mission DDs would be primary in this collection.

~ Not sure that's true. Don't think any schema should be primary in any bundle not at EN.

~ Not disagreeing, but the standards has a description of how to make bundles.

~ Someone wants to know why others want this there - any good reason.

Another Question: What? The directory? The contents?

Answer and Another Question: Both. If the goal is to include all schemas - why?

Answer: When Elizabeth was working on the SR - the first edition was correct - all LDDs are registered to PDS - they go in the system bundle at EN and will go to NSSDC. All of those are secondary in your bundle. Primary at EN. Secondary can be physically present or not, but has to have every LID referenced - at least in the inventory. If put them in physically - that's a back up for if not on-line.

We're wrapped around the axle. Early, we had the concept of master schema - think the XML collection s left from that earlier concept from when people were going to edit.

Question: Is this required?

Answer: Thinks true.

~ Optional, pretty sure.

~ Someone is looking it up.

~ There's still no good defence - heard it's left over and should be removed.

~ Not against system bundle, but against (interrupted)

SR, page 19. Schema collection is optional.

~ An XML collection contains all XML files. Wrong word.

~ Maybe the section needs to be re-written.

~ Thanks.

Someone is glad to see that not including this is okay - that they are doing the right thing.

~ None of the PPI MAVEN bundles have it either.

Question: Does someone want to write an SCR to update the SR? Seems it should be clear there's no reason to have it.

Answer: There's no requirement that it's primary for EN and secondary for everyone else. No requirement. That's how it should be done. That's the missing piece. Sean's already maintaining all the schema files and delivering them to NSSDC.

~ Yes, but still working on updates to context products with updated LIDVIDs. So, hasn't done it yet.

We are close to the end of our time. For next week - want someone to suggest SETI issues for next time.

These are big issues that require integrated solutions. No easy answers. Tied up with each other. Can write some SCRs for related problems.

~ Let's talk through a virtual SCR - like enumerated list - before we write SCRs.

Question: Do we need an SCR to undertake a reasonably large design issue?

Answer: More that we need the time.

Another Question: Do we need an SCR to be official?

Answer: Would say we identify a work group then they beg managers for time.

~ Someone can present some ideas soon.

Question: Does anyone have anything else? Besides the CCB document thing, because that's out of our pay grade.

Answer: My boss said that in the MC vote the SR is not included.

~ Repeat that, because I was there.

~ Things like the DPH are documents, not the actual SR.

~ Not true. Sounds like different opinions.

Question: Are the MC notes accurate?

Answer: Yes.

~ Someone is looking at the notes - they are ambiguous.

~ Someone needs to send an email that it wasn't captured appropriately. But this is not appropriate for the DDWG to discuss.

The MC notes say they voted unanimously to remove the document review task from the CCB.

~ The SR is not a document.

~ Someone interprets MC vote to include all documents.

~ Historically the SR has been treated like any other document.

~ On the second day for the MC, Dan provided a motion to vote on - not in notes, but feels all agreed that the SR comes out of IM.

~ But it doesn't. That's a fact. Field format has two pages that are not in the IM. SR is words, not implementation.

~ Not sure people agree.

~ When we started the IM was the SR, but it broke. Together they form the basis for our system.

~ Someone will ask their manager to ask the MC.

~ Steph will clarify with Dan and Ed Grayzeck - clarify the intent.

~ Someone thought the CCB would still review changes to the SR - just not look at the document.

~ Unclear.

~ So, if the change is in the IM then part of implementing it is documenting it in the SR. Work has been separate. Maybe review committee has to check the CCB decision. Thinks all dots are connected.

The SR is the standard - should say the IM is part of this - SR is not a normal document.

~ Not sure how the SR is generated.

~ It's a document.

~ A document. Not generated from a database.

~ Manually created and maintained. Has stuff included that is not in the IM.

~ So, more of a policy.

This isn't the forum for this.

_____

Question: Meet next week?

Answer: Someone has a conflict, but everyone else can meet.

~ Okay.