Rosetta Review, 10 October 2017

Attending:

Various…

**RPC-ICA**

Colin Forsyth’s presentation. A number of labeling and data content issues were raised- including a question of masking apparently not being applied as needed to some fields. Following the documentation to produce L3 data from L2 data does not result in something that corresponds to the delivered L3 data.

Maud Barthelmy raises the question of quality flags, which are only in the labels where the Colin argues they should all be in the data (some already are) Rudy Frahm (US reviewer) concurs. Hans Nilsson (team) seems amenable to this and the other RIDs raised on documentation and data.

Rudy Frahm’s presentation. Regarding the lack of agreement between Rudy’s Browse Data plot and the published plot is apparently a lot of manual processing and selection done to produce the published data (as explained by Hans N.).

Gerbs Bauer raises the question of availability and release. Level 2 data is already released. Colin F. feels level 2 data is not up to scratch, though Rudy F. would be content to certify it without L3. There will be changes to the data files for L3, which for SBN would mean a full-up review again to verify the data content. Most likely, then, the L3 data will not be available in time for the RDAP – they will likely be scheduled for review again in October 2018. The L2 data are already public, so while not in ideal shape, they are at least eligible. We (SBN) should take care in posting, since some of the documentation RIDs are significant and might impact potential proposers to the RDAP (deadline 20 October). Raugh requested a list of at least RID titles (in lieu of the liens list SBN would normally supply) to include with the posted data as caveat to potential proposers. PSA indicated this should be possible.

**RPC-MIP**

Patrick Canu’s presentation. Several significant RIDs from previous version have been fully addressed. Data could not be read via label (reapds or NASAView). Suspect some formats (HK and Level 5) are not PDS compliant. This needs investigation on both sides. [I can’t find the RPC-MIP data being referenced either on the review site or in the protected review disk space to try to diagnose on the fly.] Neither NASAView nor readpds is particularly reliable for non-trivial data descriptions.

Rudy Frahm’s presentation. He notes he did not have access to L5 data and thus did not review it. [I’m not surprised – I still can’t find the L5 DSIDs on our system.] He raised the non-increasing time stamp issue. Xavier Vallieres (team) notes that the time issues are noted and will require research to determine with SONC where things are going wrong. Rudy asks how these timing issues might affect the L5 data. Xavier responds it doesn’t, because SONC produces L3 from L2, but the team produces L5 - apparently directly from L2, without reference to L3.

Some discussion regarding UTC format and terminal ‘Z’ in data files. This is not worth arguing about from the PDS3 POV, but if the team prefers the explicit ‘Z’ in the data file we should allow it in readpds and forward a note to EN regarding NASAView, if the terminal ‘Z’ is not considered valid for the DATA\_TYPE value.

**NAVCAM**

Thomas Roatsch presentation. He notes the absence of a geometry index file – geometry values summarized from the labels. (He is familiar with the Mars Express method of providing geometry in separate file from labels.) Rosetta is, as previously noted, working a number of issues related to handling of geometry across teams, so this will feed into that.

He notes PDS3 OAL does not honor LINE\_DISPLAY\_DIRECTION. This is surprising. Raugh asked Emily Law to investigate offline. [I thought this took some arguing, but was actually implemented in AOL c. 2010.]

Some European discussion regarding shape model as relates to geometry – sounds like that will be swept into geometry work generally.

Regarding RID TR-003, the numbers in the EAICD refer to frames kernel, not instrument kernel. The numbers do match for the frames kernel. Looks like a possible minor documentation issue to avoid future confusion.

Tony Farnham’s presentation. Still prefers that FITS be the archival form, but team prefers IMG. [Can’t conclude that argument, but we can serve the FITS files here.] Brief discussion of the presence of context images, which are not, apparently, well described. The “striped” images look like corrupted data, but are not – so that at least should be explained.

**GIADA**

Amara Graps’ presentation. She notes that major RIDs from last review have been addressed.

Sascha Kempf’s presentation. No new RIDs generated. Data looks very good.

**MIDAS**

(Larry notes that the European reviewer, Marco Fulle, was unable to examine the data in detail due to time constraints and filed no RIDs.)

Michael Hecht’s presentation. Notes there appear to be some outstanding (minor) RIDs from the last review still not addressed and really should be. The confusion about the table in the dataset.cat vs. file names seems to be a symptom of a naming/timestamp issue. This will be addressed. The TARGET\_NAME disambiguation is highly desirable for supporting knowledgeable but not expert users for this unique data set, but I can’t see the labels to suggest a correct solution. Apparently this involves the TARGET\_NAME keyword value, rather than a description in the EAICD, which makes it slightly more complicated. This will be worked offline to avoid wasting meeting time tracking down very specific examples.

Marco Fulle notes he did not have sufficient admin privileges to install NASAView. [? – I don’t believe NASAView or readPDS require admin privileges to install for personal use.]

**COSIMA**

Sascha Kempf’s presentation. He notes that the submission has not changed substantially from the last incarnation reviewed previously. He also notes that some label nomenclature issues (“INDEX” name) were actually fixed in the labels but not reflected in the EAICD, and of course it needs to be.

Jouni Rynoe (team) notes the team itself is still struggling with getting good spectra out of the archive. It is not clear how the current archive could be subdivided as PDS3 datasets. This is a complex problem, so PDS, PSA, and the COSIMA team all need to be involved in proposing a solution.

Eberhard Gruen’s presentation. He was able to inspect the detail in some detail and has submitted RIDs on documentation upgrades needed to clarify the offset and mask values provided in the FITS headers and their relationship to the location of the targeted area on the COSIMA target plate.

Eberhard notes that documentation is critical, and recommends that all publications be either included in the archive or required to be open access. Sascha notes user guides also can be used to address this need. Larry notes that a variety of options can be pursued, but that some things, like open access licensing or writing new documents, may be out of budget for some teams – so a one-size approach is unlikely to be successful.

Eberhard would also like to see specific engineering values added to the archive. Larry notes that this sort of thing is in planning for the next iteration. COSIMA will also benefit from the general geometry overhaul underway at Rosetta. Eberhard notes that there are major RIDs still open from the last review that remain to be addressed.

**ALICE**

Joshua Hammer’s presentation. Minor documentation RIDs only. Data look good.

Eric Quemerais’ presentation. No RIDs. Data look good.

Afternoon UMD session

Attending:

Tilden Barnes

Gerbs Bauer

Rudy Frahm

Steve Joy

Erwan Mazaraco

Brian Butler

Emily Law

Ludmilla Kolokolova

Joshua Kammer

Silvia Protopapa

Mike Kelley (presenting for Jian-Yang Li)

Tony Farnham

Lori Feaga

**OSIRIS**

Jian-Yang’s presentation contains a list of issues that should be taken as liens.

Apparently some data sets have release dates that precede data collection. That is an existential problem. The geometry discrepancies are a significant problem. He noted that although the NAC and WAC storage orders for images are different, the LINE\_DISPLAY\_DIRECTION and SAMPLE\_DISPLAY\_DIRECTION result in the same display orientation, which is good, but there is an additional 180 degree rotation noted for getting the Sun “up” that he would prefer to see the display orientation take care of as well. But this would have impact on other keywords in the label that refer to display orientation.

Lori notes that there were times when the spacecraft slewed to specifically point sunward or tailward, and wonders if the phase angle jumps might be related to that. Seems unlikely.

There is one outlier target called “MAINTENANCE”, currently undefined in PDS3. This needs some clarification.

Tilden notes these data are already publicly released as they are.

Certification: Waiting on email response from Jian-yang. [NB: he replied the data were certifiable]

**RPC-LAP**

Steve Joy’s presentation contains issues that should be taken as liens. The data format for level 2 still presents and intractable barrier to users.

Steve notes there was a problem with the instrument that is mentioned (“in May”) but not particularly well documented, not even in the volume containing the data directly affected by the anomaly. There was no RID filed on this. Tilden notes an additional document was provided to PSA about this, but not to SBN.

Certification: Certifiable, pending any more serious issues raised tomorrow.

**RPC-MAG**

Steve’s presentation for the L3 data includes a superset of the issues for all levels of data that should be taken as liens. He notes the burst mode data is still affected by high frequency noise. Previously reported problems in documentation files remain unaddressed.

Regarding the noise, while some possible sources are mentioned, the details (like amplitude and frequency of each effect) are lacking. This does not affect the level 4 data.

Steve noted a spike in the data during the period Apr 17 02:00-0:500, but the Quality Flag is zero – indicating good data. That seems inappropriate. Is the quality Flag ever being set?

Certification: Certifiable.

**CONSERT**

Erwan Mazarico’s presentation includes issues that should be taken as liens. In particular he notes some documents are in particularly bad shape, having been exported with tracked changes or unresolved (presumably internal) references resulting in error messages in the PDFs. The document labeling for multi-part documents seems to be particularly confusing for users who are not familiar with the PDS3 document labeling peculiarities. He also notes there is no provenance information in the label for the geometry included (other instruments include SPICE kernel IDs, for example).

The issue raised regarding the FMT file discrepancy has been resolved as a reviewers misunderstanding, facilitated by two different FMT files (in different data sets) having precisely the same name.

Some documents that seem to contain critical information are only in French. This would be a show-stopper for PDS; PSA may have a different opinion. The calibration document seems to be based on an example calibration for data that is not archived, and thus not available to a user to check their own calibration.

Note that Erwan was not able to thoroughly exercise the data (lack of tools?).

Tilden notes the DSID on the level 2 data is wrong (should be V2.0). Also, this is the data set that has parallel tables defined in the record. This might actually contribute to the format file confusion, so that needs to be researched a little more.

Certification: Not certifiable. Pending European review.

**RSI**

Erwan M.’s presentation includes a list of issues that should be taken as liens. He notes that the outstanding RIDs are not all resolved. In particular a RID to convert data to the ASCII TDM format has not been addressed.

The outlandish (559) number of volumes negatively affects usability. The browse data need additional explanation to explain irregularities (different numbers of files, e.g.).

Certification: Not certified. (At the least need some sort of small forces information.)

**MIRO**

Bryan Butler’s presentation contains issues that should be taken as liens. He notes that the FORTRAN code provided as documentation no longer accurately represents the algorithm needed to read the data (the record structure has changed). The team is planning to provide updated examples. Level 2 data contain repeated records (sometimes the same record appears more than twice). This is odd and should at least be explained.

Certification: Certifiable.