Lucy Pipeline Peer Review Know Issues List

Overall:

1. Two of the dictionaries (ebt and lucy) used the label processing are currently in draft format, so the label prolog entries are what they will be in production. Both dictionaries can be found

EBT: https://github.com/pds-data-dictionaries/ldd-ebt

Lucy: https://github.com/pds-data-dictionaries/ldd-lucy

1. Product title/descriptions are still very generic, and not appropriate for returned search values. These will be updated to be more specific.
2. Some reference from products to calibration files are missing.
3. Draft Instrument papers have been provided. These drafts are not final, and are in various stages within the publication/peer review process. Please note that they may change upon final publication. These papers will be included in the archive after publication.

TTCam:

1. There will be some keyword changes in the next few months. We will update as necessary. The team thinks these changes will only be in definitions, but we will see.
2. The compand/decompand sequence is as follows for the reviewers.
   1. 1. Image acquired in 12-bit mode and transferred to the TTCam DVR
   2. 2. Image converted to 8-bits (“companded”) in the DVR using commanded method and then transferred to spacecraft computer
   3. 3. 8-bit image is losslessly compressed in the Lucy spacecraft computer and eventually downlinked
   4. 4. 8-bit image data received by the SOC
   5. 5. 8-bit image converted back to 12-bits by the SOC using appropriate inverse of lossless compression and commanded companding method
   6. 6. 12-bit image data saved as a 16-bit FITS file by the SOC

LLORRI:

1. There will be some keyword changes in the next few months. We will update as necessary.
2. Data quality and Error extensions are still not implemented. These arrays are still set to “0”.
3. Reference\_List lid reference to partially processed product is missing an underscore in the collection name. <lid\_reference>urn:nasa:pds:lucy.llorri:data\_cruise2partially\_processed: should be

<lid\_reference>urn:nasa:pds:lucy.llorri:data\_cruise2\_partially\_processed:

LEISA:

1. Missing actual exposure time in the label.
2. Missing spectral\_characteristics class
   1. The exposure time will be accounted for in with the net\_integration\_time attribute
3. LEISA\_mode attribute needs a better description.

MVIC:

1. Missing actual exposure time in label.
   1. This will be accounted for using the Imaging dictionary, img;Imaging/img:Exposure in the discipline area.

Radio Science

1. DOCUMENTATION. We are still working on the Lucy specific Radio Science Documentation. WE will provide when we have a useful draft.