Instructions for Reviewers

PDS SBN Lucy Mission Pipeline Review

Overview

The purpose of this review is to ensure that the pipelines of Lucy's instruments are producing archivable data and labels for all data types, and that the pipelines' procedures are adequate to ensure the integrity of the ongoing pipeline deliveries. As a part of this review, we will also review some of the documentation.

While reviewing the materials, please use the instructions below as a guide to what is needed for each component. For a complete inventory of materials, see the review website https://sbnreview.astro.umd.edu/202311_Lucy/ .

1. The Documentation

SISs: The primary document describing the data for each instrument is its Software Interface Specification (SIS). It should give a complete description of the data and label content and structure. Review the SIS to ensure that it correctly describes the data and labels and that it provides sufficient information to understand and use the data.

Mission dictionary files (see **Supplemental files** section**).** Although they are included mainly for reference, we will appreciate it if the reviewers check them and provide their comments to improve the dictionary and ensure its completeness.

Instrument papers. They are for reference only, not for review.

2. The Data

Each product type is represented by example **data file(s)** generated by the pipeline. These are used to test and review the pipeline constituents. Each data file has a PDS-required **XML label** describing the format and content of the data file, along with metadata to facilitate analysis and search. You can use the display/analysis software of your choice to review the data and labels, but you must verify that the XML label content accurately describes the data (e.g., image orientation, binary format, or table column descriptions, etc.), which may be best done with the PDS4 Viewer. XML labels are not easy to look at without special software, so you will find the PDS Viewer very helpful. To see the full label, you must select the Data Structure Summary screen and under view, select Full Label.

The archive will organize the collections by processing level and mission phase. There are no multiple mission phases yet, and currently the data directories represent raw and calibrated (or partially processed) data and the data required for the calibration. This constitutes a complete set of the pipeline products.

These data products and their labels are all under review. Review the data products and their labels for useability and metadata content to support analysis and search. In addition, review the pipeline implementation of the calibration by attempting to reproduce the **calibration** using the provided calibration information. If any information is missing to reproduce the calibration, let us know right away and perhaps the missing piece can be provided in time to complete this aspect of the review.

3. Review reports and review meeting

Reviewers will make a report as a text file or, preferably, in the form of a PowerPoint presentation, which they will present at the review panel. There they present their findings and provide their specific comments and recommendations. Please organize your report to have a separate section for each processing level of data and for documentation and keyword definitions. Email your reports to Ludmilla Kolokolova (lkolokol@umd.edu) and Elizabeth Warner (ewarner@umd.edu) as soon as it is ready, preferably some days before the review panel date. The review panel will be held as a **Zoom meeting** to finalize the liens resulting from the review.

For more details, please, check
https://pdssbn.astro.umd.edu/howto/review_PDS4.shtml