Directory Structure for the LONEOS Archive
Ed Tedesco 29 November 2023 / Revised 14 May 2024

loneos_archive/
  data_augmented/
    lois_3_2_0_beta/
      030831/ - images and label files for date 030831
      …
      041226/ - images and label files for date 041226
    …
    lois_4_2_0/
      051113/ - images and label files for date 051113
      …
      080301/ - images and label files for date 080301

  data_original/ (includes bias images, if any were obtained)
    lois_3_2_0_beta/
      030831/ - images and label files for date 030831
      …
      041226/ - images and label files for date 041226
    …
    lois_4_2_0
      051113/ - images and label files for date 051113
      …
      080301/ - images and label files for date 080301
  document/
    The bundle's documents

Directory and File Naming Convention

Directories are organized by Lowell Observatory Imaging Software (LOIS) version, the software used to readout the CCD and write the image from each exposure to a hard disk drive.

The original image files obtained from Lowell Observatory were named yymmdd_#.nnn where # = 1 for the northern 2.88°x1.44° image and 2 for the 2.88°x1.44° southern image and nnn is the exposure number for that night. The first step in processing these was to rename them to yymmdd_#_nnn.fits. Each image's label file is named yymmdd_#_nnn.xml and the bias images and their labels are named yymmdd_#_nnn_bias.fits and yymmdd_#_nnn_bias.xml.

The augmented image files are named yymmdd_#a_nnn.fits where # = 1 for the northern 2.88°x1.44° image and 2 for the 2.88°x1.44° southern image and nnn is the exposure number for that night. Each augmented image's label file is named yymmdd_#a_nnn.xml.

Notes

The original (yymmdd_#_nnn.fits) and calibration images include the over-scan columns and their FITS headers differ from the data_augmented images' FITS headers. There are frequent errors in the original files' FITS headers.

This document refers to the images, and their accompanying metadata and documentation, produced under the LONEOS Images archiving task.

The volume (*i.e.*, lois_) directories contain one or more subdirectories, one for each date (night) for which processable images were available. However, there are missing months, and missing days within months. Some of the date subdirectories contain gaps, *i.e.*, there are missing exposure numbers within each night's entries.

There are two reasons for this missing data – 1) no images were obtained during the missing dates (*e.g.*, nights lost to weather or equipment issues or because no observations were planned for those nights)

or, 2) images that were obtained but that were not on the disk drives we received from the Lowell Observatory or that, for a variety of reasons, were not processable and so were not archived.