

Southwest Research Institute

05310-SOCINST-01 Rev 0 Chg 0

New Horizons SOC to Instrument Pipeline ICD

Page 3

This hardware was refreshed twice during the mission, so far, and one more refresh is planned on the way to the KBO. The current hardware (used at both the SOC and the CSOC) are rack-mounted servers with Intel(R) Xeon(R) CPU E5-1620, 3.60GHz processors, integrated 19TB RAID arrays, and 32GB RAM. The operating system used in all cases is Linux.

5. INTERFACE DESCRIPTION

The SOC pipeline code will call the Level 2 pipeline code by executing a separate process.

SOCINST-1 The name of the executable or script shall be:

[instrument]_level2_pipeline

where "[instrument]" is the full instrument name (i.e. alice, leisa, lorri, mvic, pepssi, rex, sdc, or swap) in lower case.

The parameters (all are character strings) passed to the Level 2 code will follow the executable name and will be in the following order (note that "full path," when stated below, means a file specification containing the filename and all directories in the file's path):

- in_file Location of input (Level 1) file (in_file)
 The SOC will provide the full path of the Level 1 input file to the Level 2 pipeline code.
- in_pds_header Location of input (Level 1) detached PDS header
 The SOC will provide the full path of the Level 1 PDS header to the Level 2 pipeline code.
- calibration_dir Location of calibration data and temporary file storage

 Data provided by the instrument team that is needed for calibration shall be supplied by
 the instrument team. The SOC will provide the root directory containing these files (and
 potentially, subdirectories) to the Level 2 pipeline code so it references the correct
 location. The structure of the directories under this directory is up to the instrument team.
- temp_dir Location for temporary storage used by code

 This is a place where the instrument pipeline code may write files for temporary use. The contents of this directory will be erased upon completion of the instrument pipeline.
- out_status Location of status file

 The Level 2 pipeline, upon completion, may write a short machine readable status file
 used to communicate the results of the processing to the main SOC pipeline. The location
 (full path) of this file will be supplied by the SOC.
- out_file Location of output (Level 2) file
 This is the file (full path) to which the output will be written. The SOC will provide this to the Level 2 pipeline code.
- out_pds_header Location of output (Level 2) detached PDS header
 This is the file (full path) to which the Level 2 PDS header will be written. The SOC will provide this to the Level 2 pipeline code.