

Psyche Local Data Dictionary Description
Version 1.0
February 10, 2025

The Psyche Local Data Dictionary (LDD), commonly referred to as the psyche mission dictionary, was designed during early project development and cruise flight segment. The dictionary is based on the 1.22.0 PDS Information model. Attributes can be found in the Discipline_Area section of a PDS4 label.

The following classes are defined for the mission. SLCK values can be provided with or without a clock partition, and in either byte or decimal based notation. If the SLCK is given without a clock partition, the *spacecraft_clock_partition* keyword must be defined. Examples of properly formatted SLCK values include: 0/0792731143-0277070, 0792731143-0277070, or 0792731143.2642345.

Mission-wide Classes:

`psyche:mission_phase_name` – This class contains an enumerated text string corresponding to the specific mission phase that a product was acquired in. If a product spans a phase boundary, this attribute should be set to phase in which the observation began acquisition.

`psyche:orbit` – This class contains an integer value corresponding to the orbit number, in that particular orbital operations phase.

`psyche:release_number` – This class contains an integer value corresponding to the release number that a particular product was associated with.

`psyche:spacecraft_clock_partition` – This class contains the integer value corresponding to the current mission clock partition for the current observation.

`psyche:spacecraft_clock_start` – This class contains the SCLK value at the start of the observation.

`psyche:spacecraft_clock_stop` – This class contains the SCLK value at the end of the observation.

`psyche:spacecraft_clock_start_corrected` – This class contains the corrected SCLK value at the start of the observation.

`psyche:spacecraft_clock_stop_corrected` – This class contains the corrected SCLK value at the end of the observation.

`psyche:spacecraft_fsw_dictionary_version` – This class contains an enumerated string value corresponding to the flight software dictionary being used during the observation acquisition. Acceptable values are: '5_4_2_1', '5_4_2_2'.

psyche:spacecraft_active_flight_computer – This class contains an enumerated character value corresponding to which RCE was in control during the observation acquisition. Acceptable values are: ‘A’ or ‘B’.

Instrument Specific Classes:

At the time of this release, no instrument specific classes have been defined. Additional work on the Imager, Magnetometer, Gamma Ray Spectrometer, and Neutron Spectrometer PDS4 products may necessitate the instrument specific classes, especially post-Mars gravity assist event, and certification of each instruments calibrated product pipeline.