The Planetary Science Archive

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Scientific and engineering data from ESA's planetary missions are made accessible to the world-wide scientific community via the Planetary Science Archive (PSA). The PSA consists of web-based services incorporating search, preview, download, notification and shopping basket functionality. Besides data from the GIOTTO spacecraft and several ground-based cometary observations, the PSA contains data from the Mars Express and Smart-1 spacecraft. Data from ROSETTA, HUYGENS and Venus Express will be ingested in the future.

The main goal of the archive initiative is to contribute to the maximum scientific exploitation of the data. Primary emphasis of the archive is on long-term data and knowledge preservation that will be demonstrated on examples of the instrument and spacecraft auxiliary data re-engineered using the SPICE conventions. All data sets are peer reviewed and must undergo an additional PSA internal validation procedure. The PSA continuously discusses with the community and the instrument teams the definition of derived parameters useful for data identification via cross-discipline or cross-instrument searches. This is demonstrated on the example of geometrical parameters.

All data are compatible to the Planetary Data System Standard and the PSA staff work in close collaboration with the PDS System. New areas of data exploitation as e.g. interoperability are explored recently. A PSA advisory body exists that meets regularly to review the progress on defined requirements.