

Access to the Mars Global Surveyor data through the Planetary Image Atlas.

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The Planetary Image Atlas has been developed by the Imaging Node of the Planetary Data System (PDS) at JPL and USGS Flagstaff with support from the Solar System Visualization (SSV) task and the Multimission Image Processing Laboratory (MIPL) at JPL. The Atlas is designed to be a single interface, through which a user can search for, display, and download images and other ancillary data for many planetary missions. It will eventually replace existing Imaging Node image browsers and catalog search engines.

Currently, the Atlas supports Galileo and Mars Pathfinder. New Imaging Node browsers, which are now being incorporated into the Atlas, include Clementine, Magellan, Mariner 9, Viking Landers and Viking Orbiters along with several new features which will be accessible by the end of year 2000.

New datasets being introduced to the Atlas in 2000 and 2001 are from the Mars Global Surveyor spacecraft. Namely, they are : Mars Orbiter Camera (MOC) images, Mars Orbiter Laser Altimeter (MOLA) topography and a subset of the Thermal Emission Spectrometer data (Lambert albedo), which are released to PDS on a regular schedule. We plan to add some other products such as MOLA-gridded datasets and pulse widths, TES thermal inertia and dust opacity, as they become available through PDS.

Among the new features is an ability to locate and display MOLA topography which was acquired simultaneously with the MOC image. The search engine will locate MOLA data corresponding to the time of MOC image exposure. Several options will be available for the data analysis. The user will be able to plot search results in the Web browser window or download image and topography data. We also plan to incorporate into our results some of the TES data. Another feature is a retrieval of full set of MGS and Viking data for a specific region. All of the data and products mentioned above can be included along with the Viking Orbiter images, MOLA-gridded topography.

In the long run, the Atlas will be able to output data in formats compatible with some of the Geographic Information Systems (GIS), such as ArcView.

This resource can be extensively used by anyone interested in Mars data research and analysis.