Marsviewer: Public Release and PDS Data. R. G. Deen[1], N. T. Toole[2], and S. S. Algermissen[3]; [1]Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Dr, Pasadena, CA 91109, Bob.Deen@jpl.nasa.gov, [2]same, Nicholas.T.Toole@jpl.nasa.gov, [3]same, Stirling.S.Algermissen.jpl.nasa.gov.

Introduction: Marsviewer is an image viewing tool tailored to Mars in-situ missions. It makes it easy to view original images (EDR's) as well as all derived image products (RDR's), such as XYZ maps, slope, reachability, mosaics, etc. Originally designed as a QC tool for the MER image processing team, it sees wide use throughout the MER, MSL, and PHX operations and science teams (with InSight and Mars 2020 coming soon).

Remote Access: Historically, Marsviewer required access to the image data store via local disk. This meant it had to run on the operational workstations. Remote access was only possible via X-windows, which was a significant limiting factor.

Leveraging off the Webification (w10n) protocol [1,2], Marsviewer, which is a Java application, is now able to run locally on any computer (Mac, PC, or Workstation). Data is accessed remotely off a w10n server, meaning that all user interaction can be local.

This remote access version has been deployed to the MSL operations team, and deployment to MER and InSight are in progress.

Web Marsviewer: In addition to the remote version of the Java client, we have recently developed a Web app version of Marsviewer. Written in JavaScript, this version requires no installation and works off most modern browsers. It communicates with a w10n-compliant web service that presents a mission-independent virtual file system, rather than reflecting the physical file system. This version has also been deployed to the MSL operations team, in a beta test form.

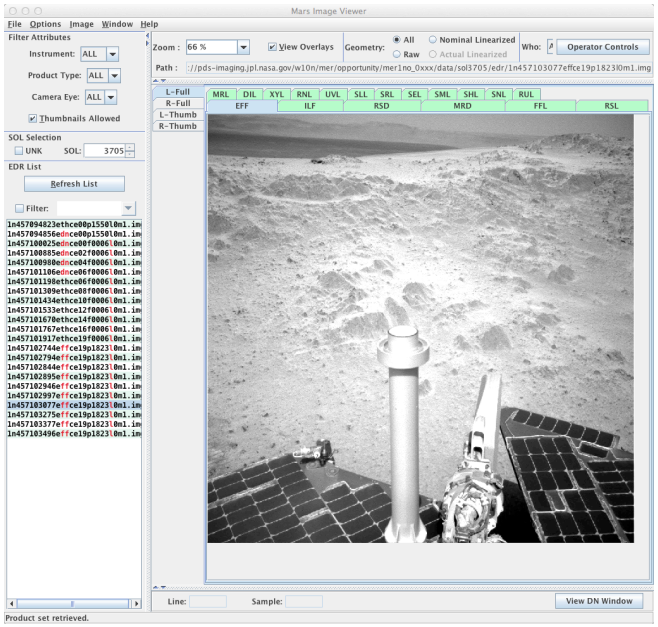
PDS Public Data Access: The PDS data archive is now accessible via a w10n server, meaning that all functionality of Marsviewer is available to visualized Mars lander and rover data in PDS (for MER, PHX, and MSL). As such, we are now releasing the Java version of Marsviewer to the general public [3]. For the first release, the MMM (Mastcam, MAHLI, MARDI) cameras on MSL are not supported, but those will be coming soon.

References:

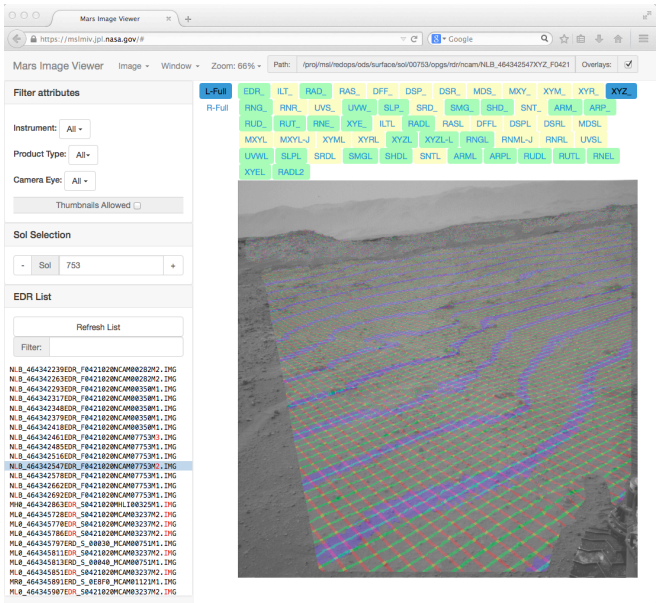
[1] http://data.jpl.nasa.gov/earth-help

[2] http://w10n.org

[3] http://pds-imaging.jpl.nasa.gov/tools/marsviewer



Remote Marsviewer viewing PDS data from Opportunity, Sol 3705.



Web Marsviewer showing MSL data from Sol 753, with XYZ overlay.