

Thomas Maersperger, Calli Jenkerson, and Jason Werpy, Science Applications International Corporation (SAIC), Contractor to The U.S. Geological Survey Center for Earth Resources Observation and Science (USGS EROS)

# MRTWeb: Enhanced MODIS Data Discovery and Delivery Services from the LP DAAC

Historically, the Land Processes Distributed Active Archive Center (LP DAAC) has distributed MODIS land product tiles in the standard 10 x 10 degree extent, Sinusoidal projection, and HDF-EOS format. The LP DAAC is developing enhanced MODIS data discovery and delivery services by combining the search, visualization, and selection functions of the Global Visualization Viewer (GloVis) with the mosaicking, spatial subsetting, band subsetting, reprojection, resampling, and reformatting functions of the MODIS Reprojection Tool (MRT). MRTWeb is currently in Beta testing, with public release pending the close of the development effort. This poster illustrates MRTWeb Beta functionality and provides an example use of the tool for creating and delivering a custom mosaic.

Register for our e-mail notification service to stay informed about the public release of this tool ([http://lpdaac.usgs.gov/news\\_register.asp](http://lpdaac.usgs.gov/news_register.asp)).

## 1. SELECT

Use the MRTWeb Selection tab to choose MODIS Land product tiles, dates, and bands of interest. Select multiple adjacent tiles of the same date to build large area mosaics, or multiple dates of the same tile to build smaller area time series.

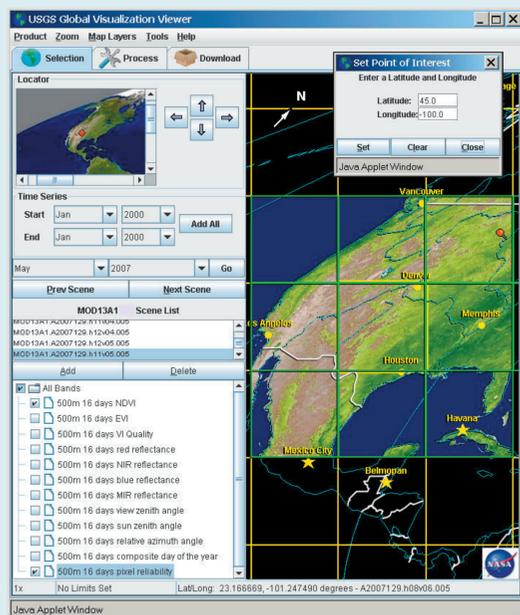


Figure 1. An example of finding, visualizing, and selecting input MODIS data for a continental U.S. mosaic. Thirteen MOD13A1 tiles from Julian day 129 2007 were selected and added to the scene list using the spatial and temporal navigation functions of MRTWeb. Only the NDVI and pixel reliability bands were selected for output from the twelve layers available in the original product. Zoom level, map layers, and help functions are also provided.

## 2. PROCESS

Continue to the MRTWeb Process tab to specify projection, spatial subsetting, resampling, and output formatting options. Then click the process button to initiate your processing job on LP DAAC servers.

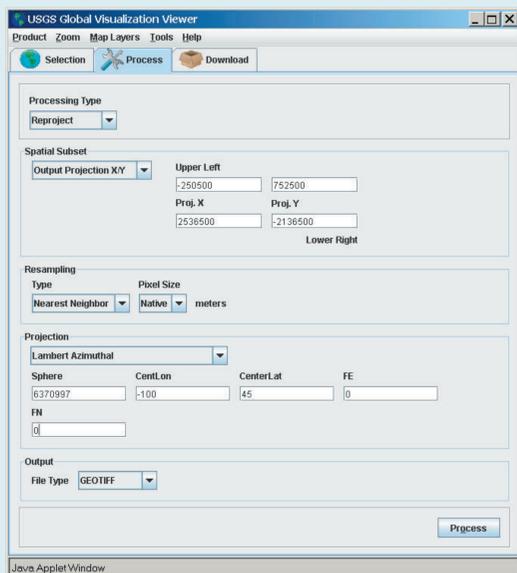


Figure 2. An example of specifying user-defined processing options for a continental U.S. mosaic. The MODIS data selected in figure 1 are mosaicked and reprojected to the Lambert Azimuthal projection using nearest neighbor interpolation at native resolution. The outputs are then clipped to the specified spatial subset, and written to GeoTIFF format. Currently, MRTWeb supports fourteen projections and three output file formats (i.e., HDF-EOS, GeoTIFF, and binary).

## 3. DOWNLOAD

The MRTWeb Download tab provides status of your processing job and an FTP-link to your output product(s) when complete. The original input MODIS tiles, processing logs, and processing parameters are also available for download.

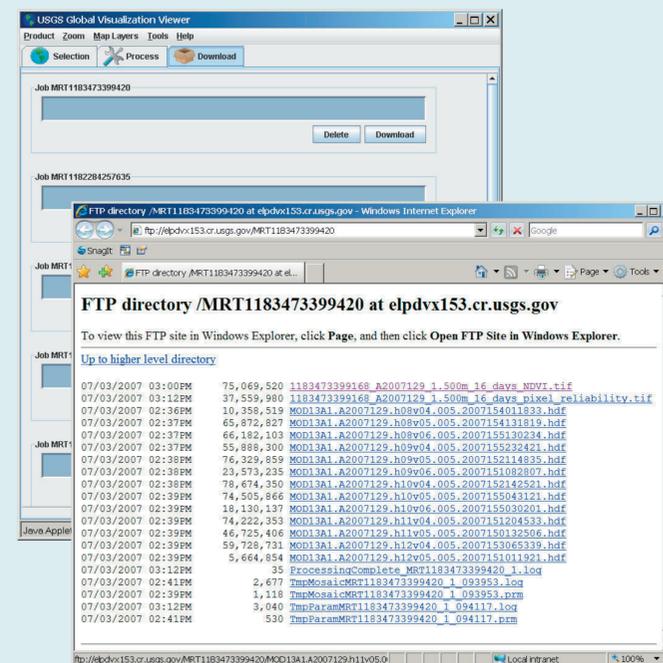


Figure 3. The MRTWeb job status and download screens for the continental U.S. mosaic example.

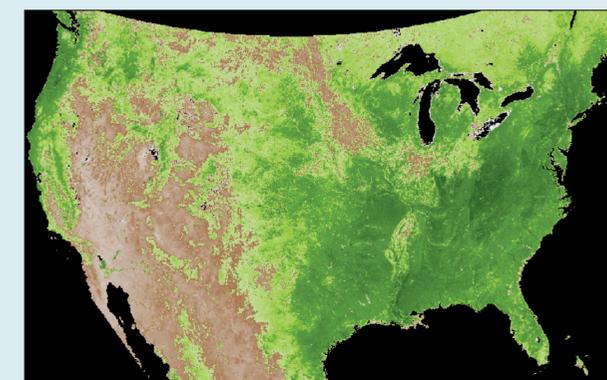


Figure 4. The custom MOD13A1 NDVI mosaic produced by MRTWeb.

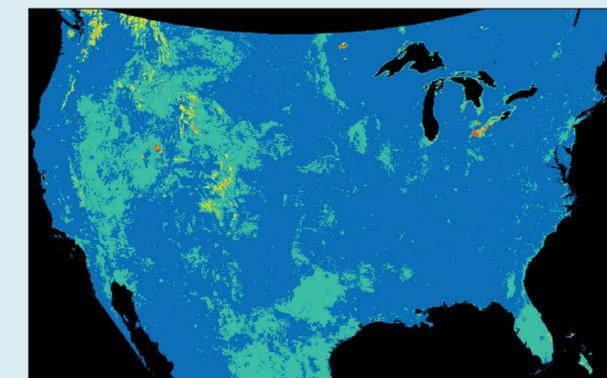


Figure 5. The MOD13A1 pixel reliability values carried along in the MRTWeb processing.