

Introduction to GloVis

Welcome to GloVis, the USGS Global Visualization Viewer.

This video will provide you some examples of how to get LP DAAC ASTER and MODIS products using the GloVis interface.

Section 1 ASTER Orthorectified

Section one shows how to get Orthorectified ASTER L1B data produced on-demand, section two shows how to get ASTER L1B data from the free U.S. and territories collection, and section three shows how to get MODIS Terra 8-day Surface Reflectance data.

In our ASTER Orthorectified L1B example, we will find scenes acquired over Sydney, Australia using a shapefile and select the best scenes from the candidates displayed. Then, we will enter the shopping cart, choose processing options, and place an order.

To begin, click on the Get Data tab of the LP DAAC Web site, locate the USGS GloVis section, and click on the More Information link.

This page provides a brief overview of GloVis with links to the user guide. Click on the Launch GloVis link to open this interface. If you experience difficulties loading GloVis in your Web browser, please verify that you have Java version 6.1 or newer installed on your system and have disabled pop-up blockers.

On the GloVis top menu bar, click Collection, then ASTER, then L1A Day to begin viewing this collection. To generate any higher-level ASTER data product, such as the ASTER Orthorectified L1B, you must begin by selecting the ASTER L1A collection. You will be prompted to select the higher-level product of interest later in the process.

You will receive a pop-up message containing information about data access restrictions. While all users are able to search and browse the data set, users must complete an application process to order the ASTER L1A and other ASTER On-demand products. More information on the data access policies can be reviewed by clicking on the View ASTER Policies button, or by contacting a LP DAAC User Services Representative.

Now click Map Layers on the GloVis menu bar, and then click Read Shapefile on the drop down. In this example, we are uploading our shapefile for an area of interest near Sydney Australia and selecting red for the shapefile outline. Once a shapefile upload is complete, GloVis will relocate you to this area of interest. Anytime you change areas in GloVis, it may take a few moments for the imagery to full load in the viewer.

To get a closer look at the scenes covering this area, click Resolution on the menu bar, then click 400m to zoom in.

Click 10% on the Max Cloud drop down menu. This will hide any scenes with an estimated cloud cover of greater than 10%. This feature is useful for eliminating cloudy imagery from consideration.

Now we'll select four ASTER scenes covering our area of interest and begin the ordering process. Simply left-click a scene of interest to select it then click add to add it to the scene list. You can right-click on any scene selected in the GloVis viewer to display its detailed metadata information.

Once all scenes of interest appear in the list, click send to cart to begin the order process. You will be routed to the USGS Earth Explorer Shopping cart. A user name and password are required. If you do not already have an Earth Explorer account, click on Register on the top menu bar. Once registered, you may continue the ordering process where you left off.

Once signed in, you will see a list of the scenes you selected as well as a number of ordering options. Either click the drop-down box in the Product Description field and select the higher-level product of interest or use the bottom center box to apply a single product selection to all the scenes listed above. In this example, we are requesting that an ASTER Orthorectified LIB be generated on-demand for each of the four scenes in the order.

Click on the Processing Options button to review the setting available for this product. In this case, we click apply to accept the default settings of Water Detection ON and GeoTIFF file format.

If one or more of the individual Processing Options buttons was not clicked, reviewed, and applied before clicking on the Submit Order button, an error message will be displayed. Make sure to review and apply the processing options for each scene before submitting the order.

Once you have successfully submitted your order, you will see an order confirmation and summary page. Save the Order Number for reference when inquiring about the status of this order.

You will receive a system generated notification at the email address you provided when setting up your account. The notification contains your order number and a hyperlink to view the status of your order.

Once the order completes, you will receive another email containing the ftp link, the ftp expiration date, and instructions for accessing the data ordered.

More information about GloVis is available in the "get data" section of our website. Detailed information about ASTER products is available from the "products" section of our web site. If

you have further questions about these products and services, don't hesitate to contact a customer service representative.

Section 2 ASTER L1B US Day

In this example, we will use GloVis find available ASTER L1B scenes acquired over Las Vegas, Nevada, select the best granules from the candidates displayed, enter the shopping cart, choose processing options, and place an order.

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On the GloVis top menu bar, click Collection, then ASTER, then L1B US Day to begin viewing this collection. This collection contains ASTER L1B data for the United States and its territories only. These data are freely available to any end user.

Now click Map Layers on the GloVis menu bar, and then click Cities and Administrative Boundaries. These map layers provide useful spatial context for selecting the underlying imagery.

To navigate to our area of interest, click the southern tip of the state of Nevada in the map locator window. Anytime you change areas in GloVis, it may take a few moments for the imagery to full load in the viewer. Once the imagery appears, you can center Las Vegas in the viewer by dragging and releasing the image frame.

To get a closer look at the scenes covering this area, click Resolution on the menu bar, and then click 400m to zoom in.

Now we'll select two ASTER scenes covering Las Vegas and begin the ordering process. Simply left-click a scene of interest to select it then click add to add it to the scene list. You can cycle through the displayed scenes using the Next Scene button if you wish. You can also right-click on any scene selected in the GloVis viewer to display its detailed metadata information.

Once all scenes of interest appear in the list, click send to cart to begin the order process. You will be routed to the USGS Earth Explorer Shopping cart. A user name and password are required. If you do not already have an Earth Explorer account, click on Register on the top menu bar. Once registered, you may continue the ordering process where you left off.

Once signed in, you will see a list of the scenes you selected. Click on the Processing Options button to review the setting available for this product. In this case, we click apply to accept the default setting of HDF file format.

If one or more of the individual Processing Options buttons was not clicked, reviewed, and applied before clicking on the Submit Order button, an error message will be displayed. Make sure to review and apply the processing options for each scene before submitting the order.

Once you have successfully submitted your order, you will see an order confirmation and summary page. Save the Order Number for reference when inquiring about the status of this order.

You will receive a system generated notification at the email address you provided when setting up your account. The notification contains your order number and a hyperlink to view the status of your order.

Once the order completes, you will receive another email containing the ftp link, the ftp expiration date, and instructions for accessing the data ordered.

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Section 3 MODIS Surface Reflectance 8-Day L3 Global 500m (MOD09A1)

In this example, we will identify a recent MOD09A1 MODIS Terra Surface Reflectance 8-Day 500 meter tile acquired over an area of interest that includes Minneapolis, Chicago, and part of the Great Lakes near Michigan. Then we will select a tile, enter the shopping cart, and place an order.

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On the GloVis top menu bar, click Collection, then MODIS Terra, then MOD09A1 to begin viewing this collection. All MODIS collections are global in extent and are freely available to any end user.

Now click Map Layers on the GloVis menu bar, and then click Cities. This map layer provides useful spatial context for selecting the underlying imagery.

To navigate to our area of interest, click the navigation arrows until the MODIS tile containing Minneapolis is centered in the viewer. Anytime you change areas in GloVis, it may take a few moments for the imagery to full load.

To get a closer look at the tile covering this area, click Resolution on the menu bar, and then click 5000m to zoom in. You can right-click on any tile selected in the GloVis viewer to display its detailed metadata information, in this case the MOD09A1 tile over our area of interest for the acquisition date of May first, 2011.

Now we'll select the MOD09A1 tile and begin the ordering process. Simply left-click the tile of interest to select it, then, click add to add it to the scene list, and click send to cart to begin the order process.

You will be routed to the USGS Earth Explorer Shopping cart. A user name and password are required. If you do not already have an Earth Explorer account, click on Register on the top menu bar. Once registered, you may continue the ordering process where you left off.

Once signed in, you will see a list of the scenes you selected. Click Submit Order and you will see an order confirmation and summary page. Save the Order Number for reference when inquiring about the status of this order.

You will receive a system generated notification at the email address you provided when setting up your account. The notification contains your order number and a hyperlink to view the status of your order.

Once the order completes, you will receive another email containing the ftp link, the ftp expiration date, and instructions for accessing the data ordered.

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