

Search and Download Data Product Using Mirador

About Mirador

Mirador is a simplified data search tool that was developed at NASA Goddard Earth Sciences Data and Information Services Center (GES DISC). Mirador is a user friendly interface that allows users to search, browse and order Earth Science data. You can download the data using several different methods, which makes the process easier for all types of users, depending on their personal preferences.

How to Browse Data

Go to the Mirador website: <http://mirador.gsfc.nasa.gov/>

On Mirador's main page you are directed to the 'Keyword Search', in which you will need to input a *Keyword*, *Time Span*, and *Location*.

In the *Keyword* search box, enter search criteria that is related to the data set you would like to retrieve, such as:

1. An instrument (e.g. MODIS, TRMM)
2. A parameter (e.g. precipitation, clouds)
3. A "short name" (e.g. TRMM_2A23)

You may search multiple terms in order to narrow down the search results.

In the *Time Span* search box, enter a time span of interest in one of the following ways:

1. Click on the calendar icons and selecting begin/end dates
2. Type in dates in many formats and the Mirador interface will be able to read it (e.g. 5-10-05 or May 5th 2010)

If left blank, the default time span will be from 1/1/1978 to the present date.

In the *Location* search box, enter a location of interest in one of the following formats:

1. By location name, if recognizable: (e.g. Oklahoma or Ice Shelf)
2. By a bounding box: (Minimum Latitude, Minimum Longitude),(Maximum Latitude, Maximum Longitude) (e.g. (33,-94),(38,-104))
3. By Lat/Lon: North South East West (e.g. 38N, 33South, -94e, -104west)
4. By partial Lat/Lon: (e.g. if you type in only 38N it will search for (38,180),(-90,-180))

If left blank, the default location will be (90,180),(-90,-180)

Click 'Search GES-DISC' once all of your search criteria has been inputted.

A list of data sets will be found that relate to the search criteria that was inputted. Look carefully through all the results noting information such as *Parameters*, *Spatial Resolution*, *Temporal Resolution*, number of files, and total file size.

If you are not confident that you have found the data set you would like to download, you may get more information about each data set by doing the following:

Click on the links next to 'View Files' to view and download individual files within the data set. You are able to download individual files in the following ways:

1. Check the boxes next to the files you would like to download and then click 'Add Selected Files To Cart' or you can select all the files by clicking 'Add All Files in All Pages to Cart' and begin the check out process.
2. Or next to the 'One Click Download' under an individual file you would like to download, select a quick download option from the following links: HDF (FTP), HDF (HTTP), or OPeNDAP

Click on the links next to 'Info' to get more information about the data set you are interested in. This link sends you to a description of the products that should make it easier to decide if you would like to download this data set.

Once you have looked through the search results and you are confident you have found the data set you would like to download you are now ready to checkout. Check the box next to the data set you have selected.

Click 'Add Selected Files To Cart'

Select 'Continue to Cart'

If you have selected the wrong files and you would like to remove data sets from your shopping cart, click the 'Delete' button next to the unwanted data set. This should delete the unwanted files and show you the updated shopping cart.

If you would like to add more data sets to your shopping cart, click 'Continue Searching' and repeat the previous steps above.

Once you have finished selecting data sets and would like to begin the download process, Click 'Checkout'

How to Download Data

After you have checked out, you will be directed to a page with a list of 'Basic Download' instructions. You will see buttons that generate a list of URLs for the files in your shopping cart and there are instructions accompanied of how to download. The default instructions tell you

how to download in the command line for **wget** and **curl** using the list of URLs. The resulting files will be in HTP format.

If you do not want to use the default download instructions, you may select the 'More Download Options' tab. There are five methods of download and the website gives directions how to use each method. The following download methods are available:

1. GES DISC Download Manager
2. FTP Batch Script
3. Browser-Based Download Manager
4. On The Fly TAR
5. Complex Download Data (with wget, curl, etc.)

Mirador – Simple Search

<http://mirador.gsfc.nasa.gov/>

A simple, clean interface that employs the Google mini appliance for metadata keyword searches.

The screenshot shows the Mirador Simple Search interface. At the top, there is a NASA logo and the text 'National Aeronautics and Space Administration' and 'Goddard Earth Sciences Data and Information Services Center'. A search bar labeled 'Search DISC' with a 'GO' button and a link to 'Advanced Search' is in the top right. Below the header, there are navigation tabs for various data categories: ACCDISC, AgDISC, A-TRAIN, AIRS, HURRICANES, NEESPI, OCEAN COLOR, and POISC. The main content area features a 'Mirador' header with the tagline 'Data Access Made Simple' and a breadcrumb trail 'You are here: Keyword Search'. The search form includes fields for 'Keyword', 'Location' (with a dropdown menu), 'From' (date), and 'To' (date). There are also buttons for 'Projects' and 'Keyword'. The form is annotated with colored circles and arrows pointing to labels on the right: a green circle around the 'Keyword' field points to 'Keyword'; an orange circle around the 'From' and 'To' fields points to 'Time span'; a purple circle around the 'Location' field points to 'Location'; a red circle around the 'Event' field points to 'Event'; and a black arrow points from the 'Semantic Mirador' label to the search form area.

Mirador supports Searching by:

Keyword

Time span

Location

Event

Semantic Mirador

Mirador – Search <http://mirador.gsfc.nasa.gov/>

Search results lists all available data products that match criteria, along with product information and statistics.

The screenshot shows the Mirador search results page. On the left is a sidebar with search filters: Keyword (MERRA cloud precipitation), Time Span (1978-01-01 00:00:00 to 2009-12-31 23:59:59), and Location (Worldwide). The main content area displays two data sets:

- MERRA Chem 2D IAU States Cloud Precip, Time average 3-hourly (ata coord, 1.25x1.72) (MAT3FVCHM)**: Approx. 3665 files found (321,892 MB). Parameters: GEOPOTENTIAL HEIGHT, TERRAIN ELEVATION, LAND COVER. Spatial Resolution: 2 Degree x 1.25 degree. Temporal Resolution: 1 Day(s).
- MERRA Chem 2D IAU Diagnostics, Fluxes and Meteorology, Time Average 3-hourly (surface, 1.25x1.1) (MAT3FXCHM)**: Approx. 3665 files found (19,299 MB). Parameters: GEOPOTENTIAL HEIGHT, TERRAIN ELEVATION, LAND COVER. Spatial Resolution: 2 Degree x 1.25 degree. Temporal Resolution: 1 Day(s).

At the bottom, it shows "NASA Search Results" with a page indicator for Page 1.

Viewable and downloadable granule lists for each product.

Spatial and Parameter Subsetting

The screenshot shows the "File Listing For MAT3FVCHM" page. It displays a table of file names and start times, with a "Download Now" link for each. The table is sorted by time in descending order.

Select	File Name	Start Time
<input checked="" type="checkbox"/>	MERRA300.prod.assim.tavg3_3d_chm_Fv20001231.hdf (316.83 MB)	2000-12-31 00:00:00
<input checked="" type="checkbox"/>	MERRA300.prod.assim.tavg3_3d_chm_Fv20001230.hdf (317.86 MB)	2000-12-30 00:00:00
<input checked="" type="checkbox"/>	MERRA300.prod.assim.tavg3_3d_chm_Fv20001229.hdf (317.16 MB)	2000-12-29 00:00:00
<input checked="" type="checkbox"/>	MERRA300.prod.assim.tavg3_3d_chm_Fv20001228.hdf (315.74 MB)	2000-12-28 00:00:00

Mirador – Checkout

Checkout offers multiple ways to download the data:

The screenshot shows the Mirador checkout interface with several options circled in different colors and arrows pointing to labels on the right:

- Java-based Downloader**: Points to the "JAVA-BASED DOWNLOADER" section, which includes a "Download" button and a description of JDownloader.
- URL List**: Points to the "URL LIST FOR USE WITH DATA TRANSFER CLIENTS (WGGET, CURL, ETC.)" section, which includes a "Download" button and instructions for using various clients.
- FTP Batch Script**: Points to the "FTP BATCH SCRIPT" section, which includes a "Download" button and instructions for running the script on different platforms.
- On The Fly Tar**: Points to the "ON THE FLY TAR" section, which includes a "Download" button and a note about restarting the download if interrupted.
- DownThemAll**: Points to the "DOWNTHEMALL" section, which includes a "Download" button and a note about the plugin's speed and reliability.

Java-based Downloader

URL List

FTP Batch Script

On The Fly Tar

DownThemAll