

**NOAA/NESDIS/STAR NPROVS**

**Orbital Display System (ODS)**

**Quick Start**

Version 7.0

October 31, 2025

The purpose of this guide is to demonstrate the initial steps required to obtain the NOAA/NESDIS/STAR Orbital Display System (ODS), access data files, run the program and display data.

Also available is the ODS User's Guide which contains detailed information about all program functions.

## STEP 1 — Download the program

If ODS is not already installed or if a new version is available: download the program

- ODS is available via anonymous FTP at:

`https://www.star.nesdis.noaa.gov/data/nprovs/software/ODS.jar`

- The program can also be downloaded from the ODS web page at:

`https://www.star.nesdis.noaa.gov/smcd/opdb/nprovs/ods.php`

Using one of the above links, download the program to your computer. The program can be installed in any directory/folder.

## STEP 2 — Download some data files

Data files used by ODS are available via anonymous ftp at:

`https://www.star.nesdis.noaa.gov/data/nprovs/monitoring/ods`

The ftp directory contains the most recent 5 days of data for a variety of processing systems and satellites.

The data files can be downloaded to any directory/folder.

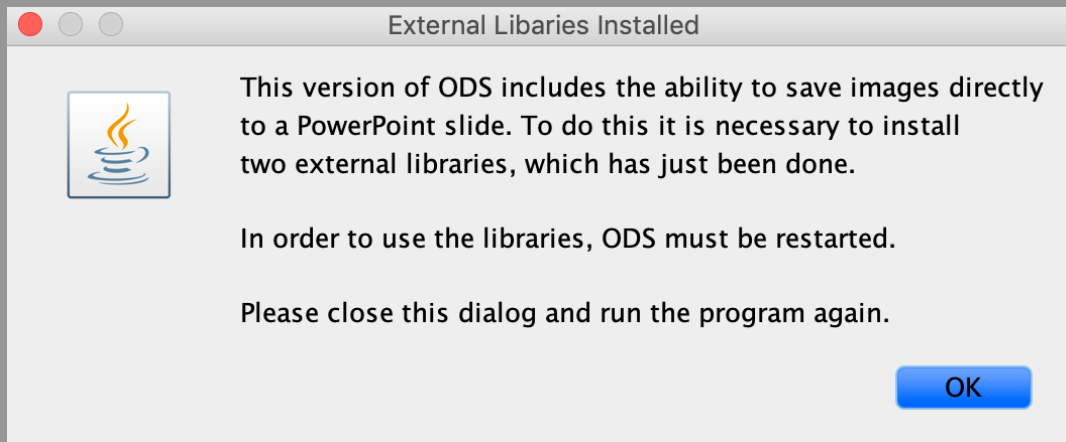
## STEP 3 — Start the program

For most people, especially those running the program on Windows or Mac OS X, it will be easiest to run the program by double-clicking the icon of the ODS.jar file that was downloaded.

ODS can also be started from a command line by entering the command:

`java -jar ODS.jar`

### A New Dialog About Libraries



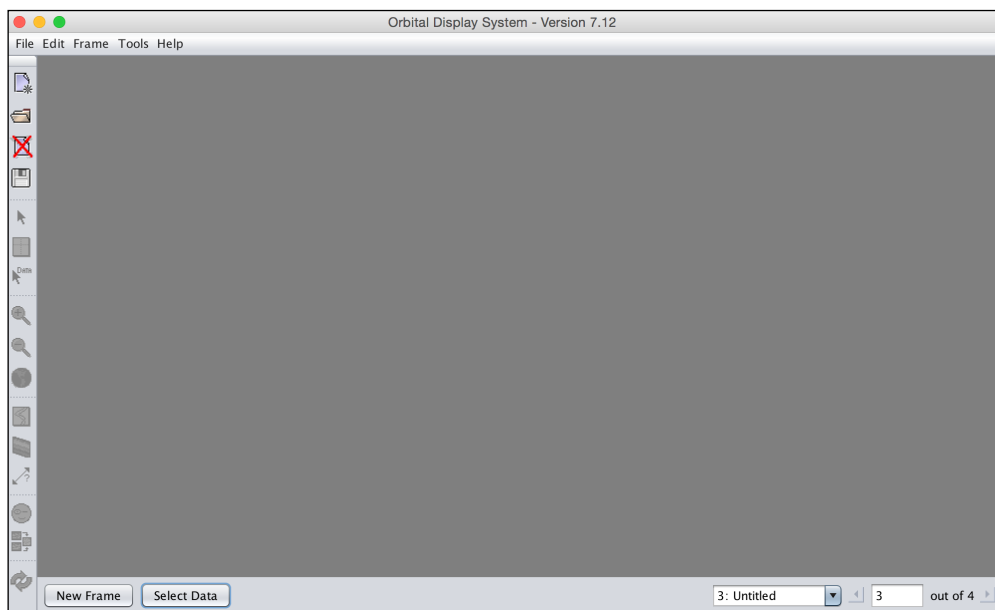
Recent versions of ODS contain the ability to save images as a PowerPoint slide. To do this, external libraries need to be installed on your computer. The installation is done automatically when ODS is run for the first time: a directory "lib" is created and the external libraries are copied into it.

In order for ODS to access the libraries, the program must be closed and run a second time. When presented with the dialog shown above, click the OK button and the program will close. Then run the program again.

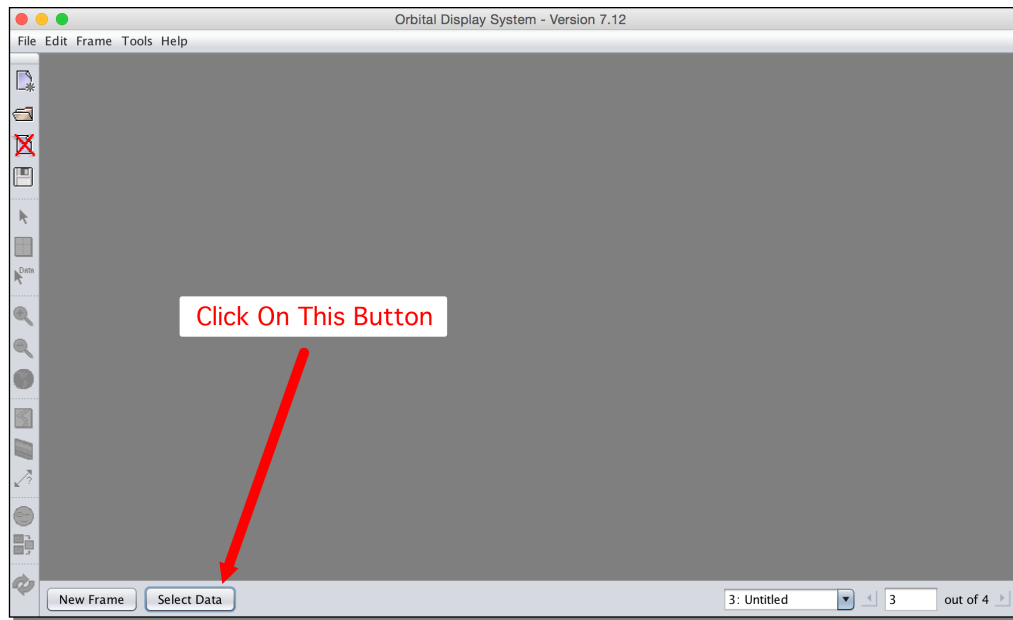
This step should only happen the first time that ODS is run.

## STEP 4 — Select some data to display

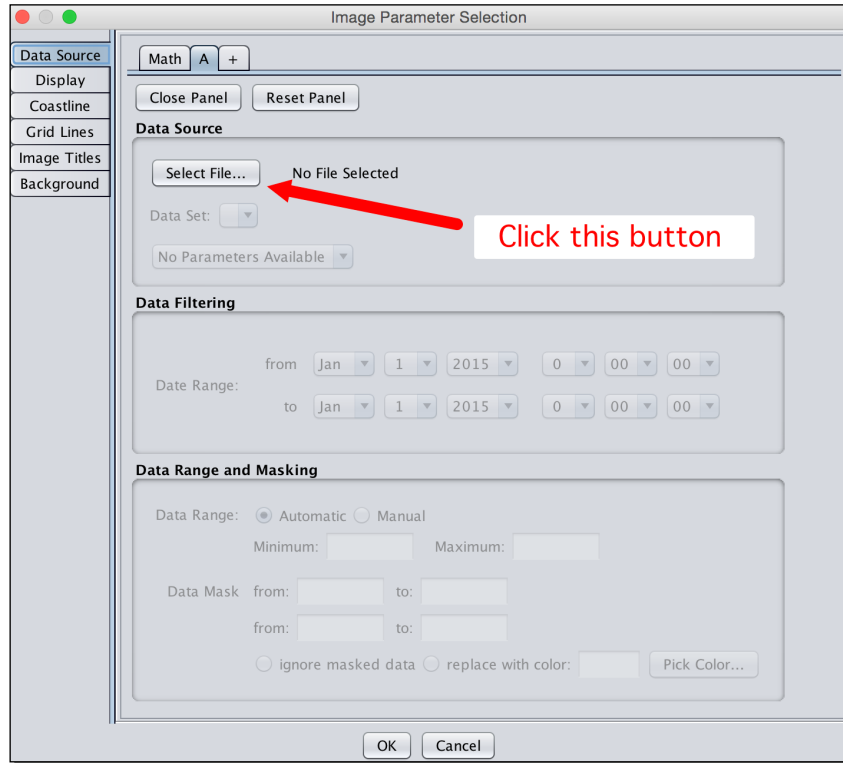
When the program opens for the first time, the window will look similar to:



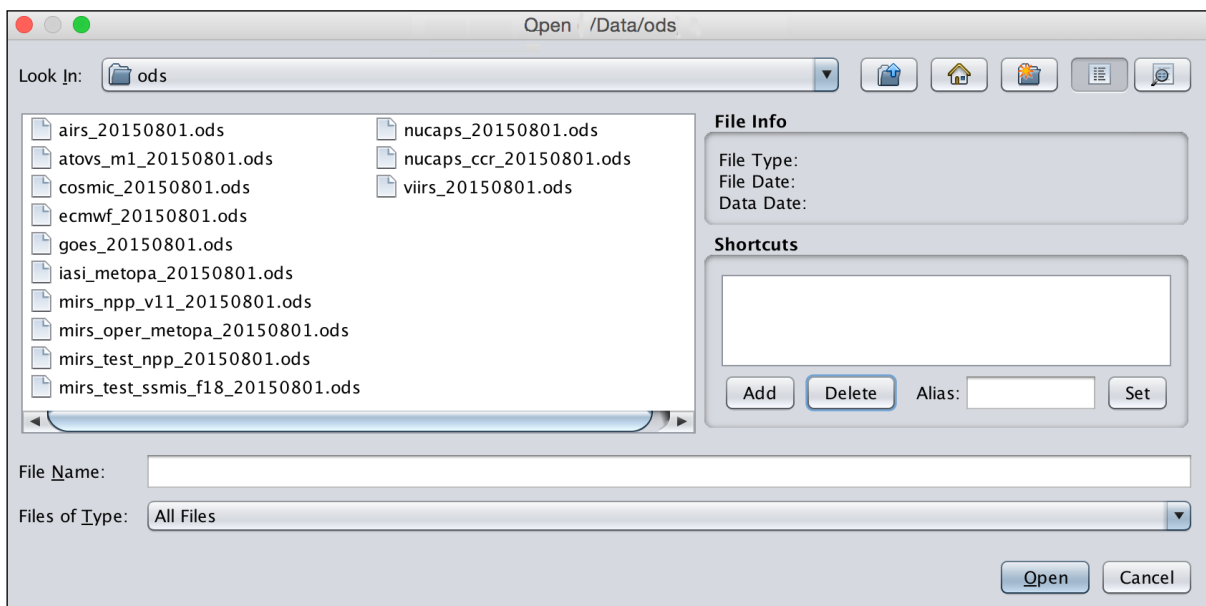
To add data, click on the “Select Data” button at the bottom of the window:



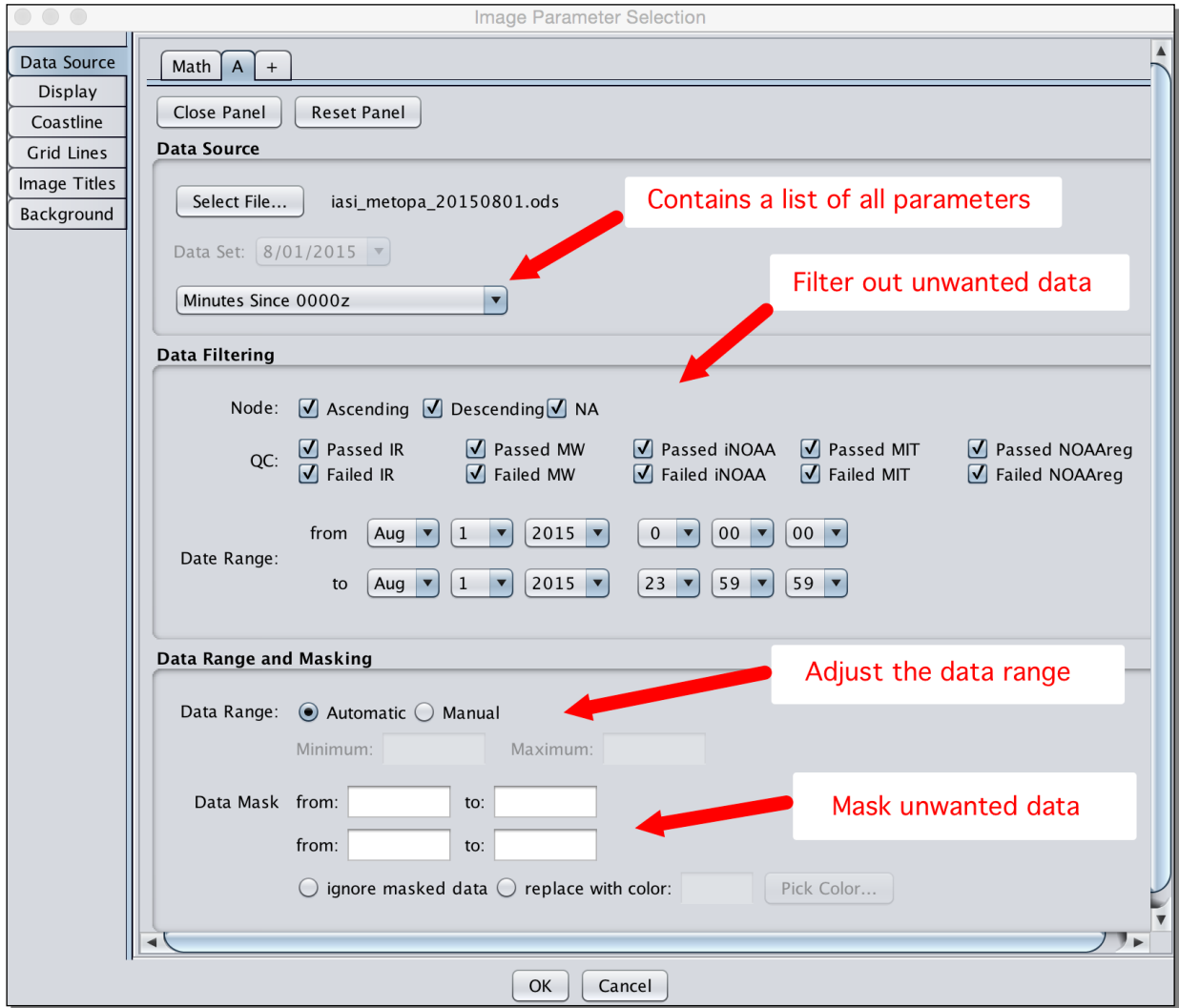
A dialog will appear. From here click on the “Select File” button:



This will bring up a file selection dialog that should be familiar. Use it to navigate to the location where the data files were stored. Then select a file.

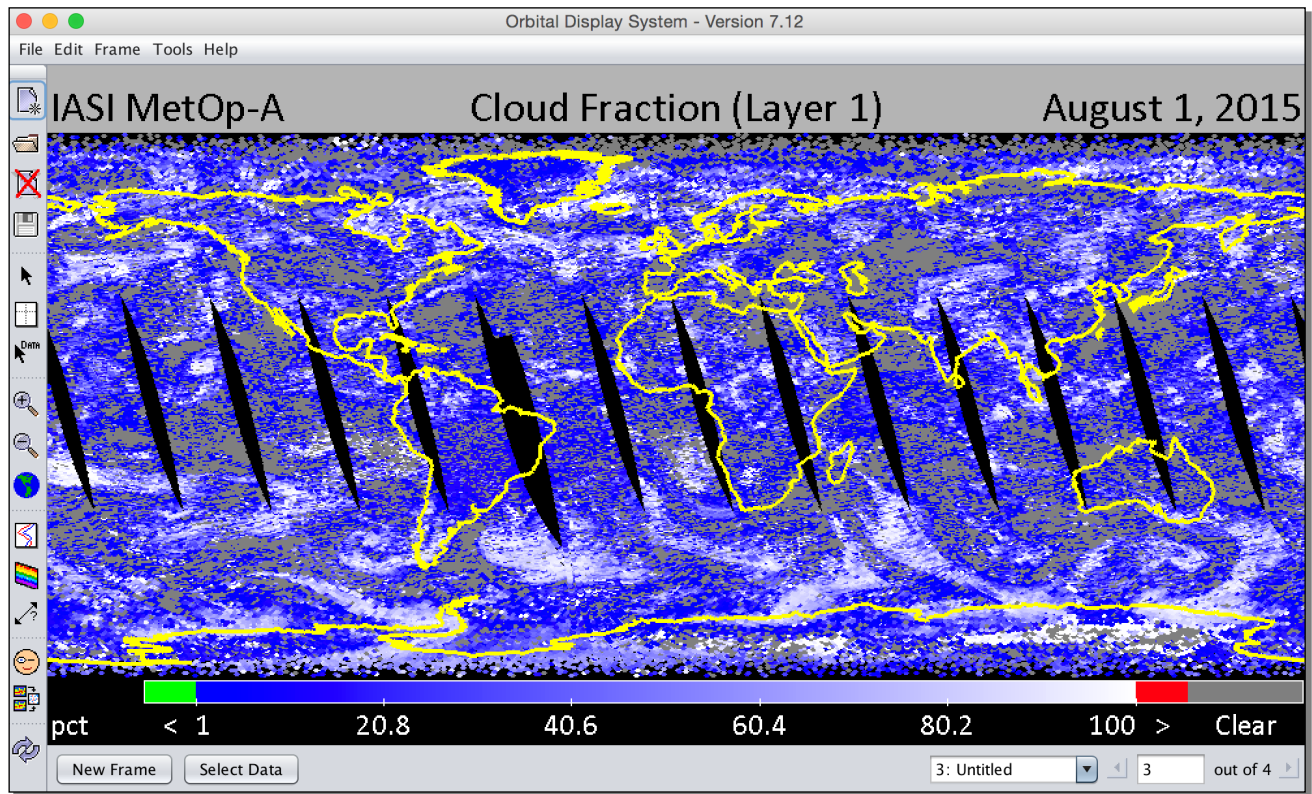


Once a file is selected, the data selection dialog will look similar to the following:



- Pick a parameter from the list of available parameters
- Filter out unwanted data (the filter options may vary from file to file)
- Adjust the data range if desired
- Mask any unwanted data
- Press the OK button at the bottom of the window

A new image will be created that shows the selected data:



At this point, the “Select Data” button can be clicked again which will bring up the data selection dialog from which other selections can be made.

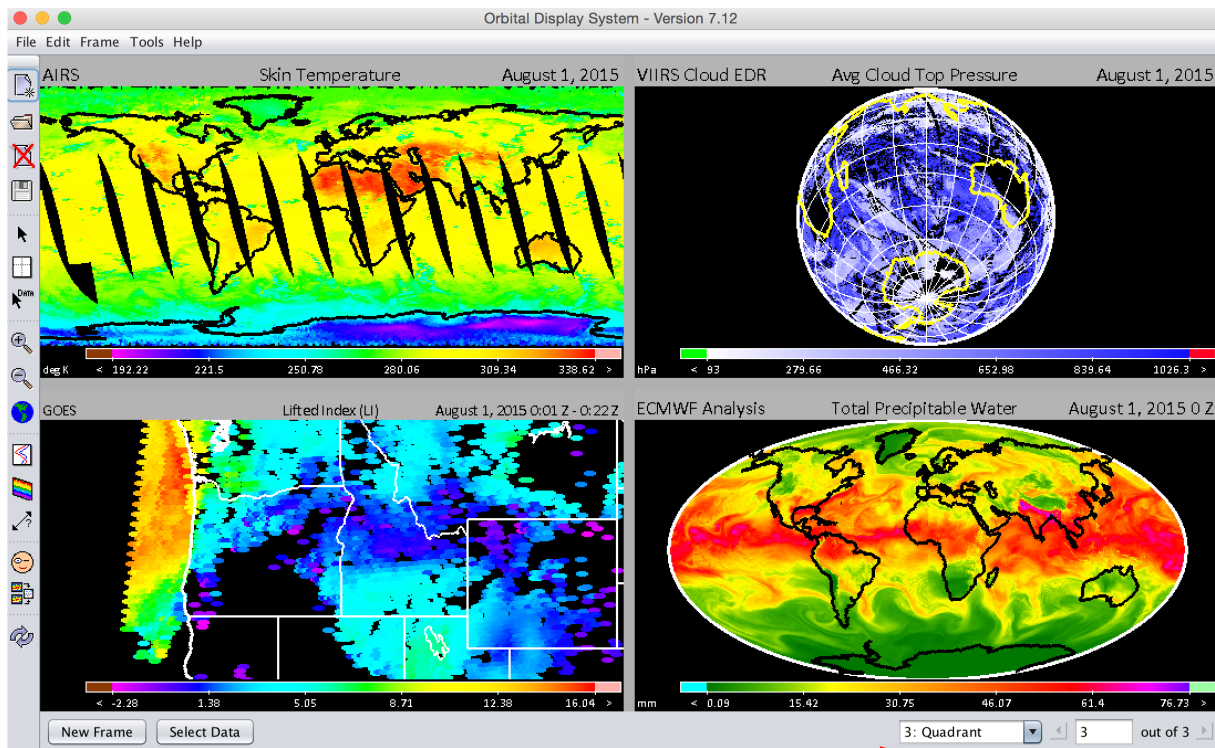


# Other Often Used Features

## Data Frames

The main ODS window can contain multiple data frames. Each data frame can contain one or more images. The use of data frames allows you to create many images and switch between them.

The data frame controls are located at the bottom of the window:



Creates a new data frame

A different frame can be selected from this list

Enter a frame number in the text field or click the left/right arrow buttons to switch between data frames

# Changing The Way Data Is Displayed

The data selection dialog contains tabs along the left side. Clicking on one of the tabs will switch to other interface controls that can be adjusted to alter the manner in which data is displayed.

Selects the data  
to be displayed

Projection, smoothing,  
contouring, color scale

Coastline & geopolitical  
boundary display

Display of grid lines

Adjust image titles

Change the  
background color

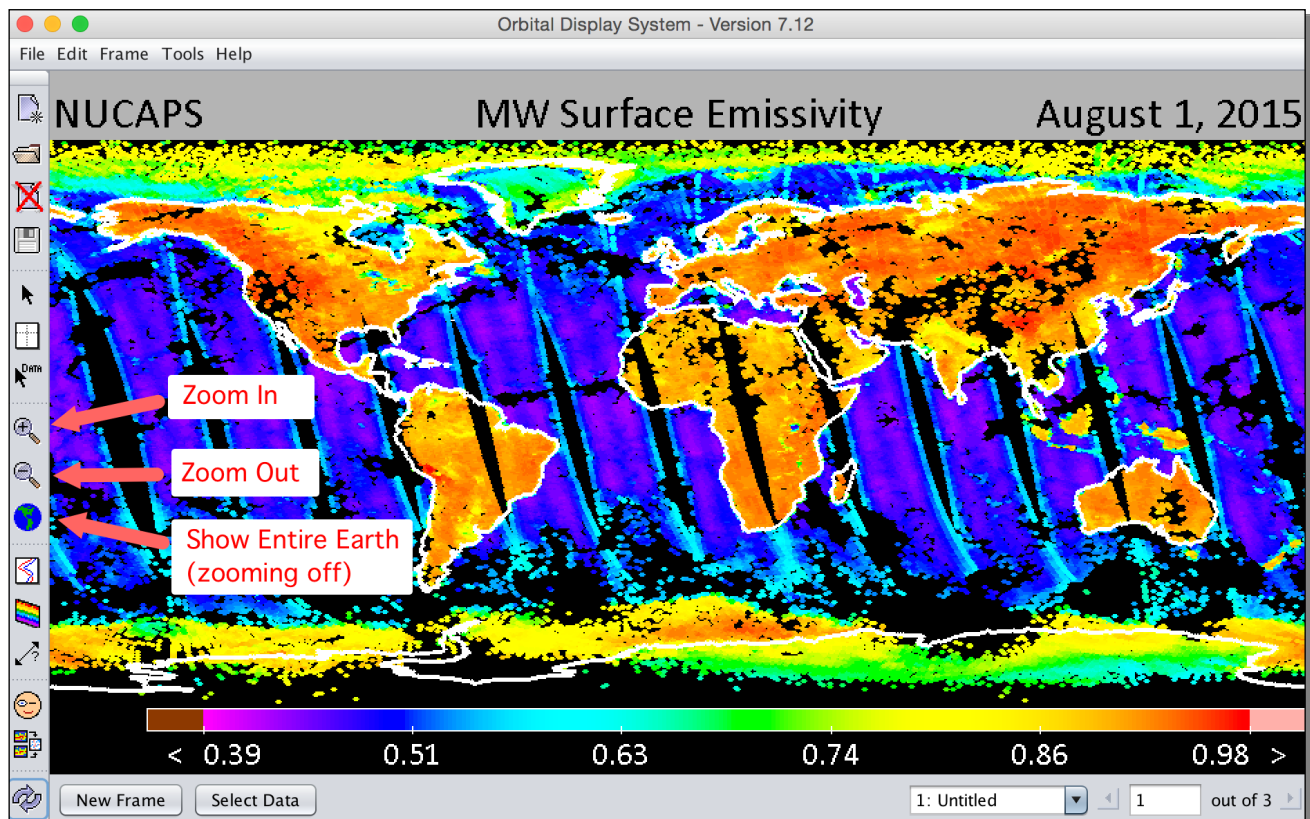
The screenshot shows the 'Image Parameter Selection' dialog box. On the left, there is a vertical stack of tabs: 'Data Source', 'Display', 'Coastline', 'Grid Lines', 'Image Titles', and 'Background'. Red arrows point from text labels on the left to these tabs. The 'Data Source' tab is currently selected. The main panel on the right contains the following sections:

- Math:** Buttons for 'Math', 'A', and '+'. Below are 'Close Panel' and 'Reset Panel' buttons.
- Data Source:** A 'Select File...' button followed by the text 'viirs\_20150801.ods'. Below is a 'Data Set:' dropdown menu showing '8/01/2015'. At the bottom is a dropdown menu showing 'Average Cloud Top Pressure'.
- Data Filtering:** A 'Node:' section with a checked 'Ascending' checkbox and an unchecked 'Descending' checkbox. Below is a 'Date Range:' section with 'from' and 'to' labels. Each label is followed by a series of dropdown menus for month, day, year, hour, minute, and second. The 'from' date is August 1, 2015, 00:00:37, and the 'to' date is August 2, 2015, 00:00:10.
- Data Range and Masking:** A 'Data Range:' section with 'Automatic' selected and 'Manual' as an option. Below are 'Minimum:' and 'Maximum:' text input fields. A 'Data Mask' section follows with 'from:' and 'to:' labels and text input fields. At the bottom are two radio buttons: 'ignore masked data' (unchecked) and 'replace with color:' (checked), followed by a color selection field and a 'Pick Color...' button.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

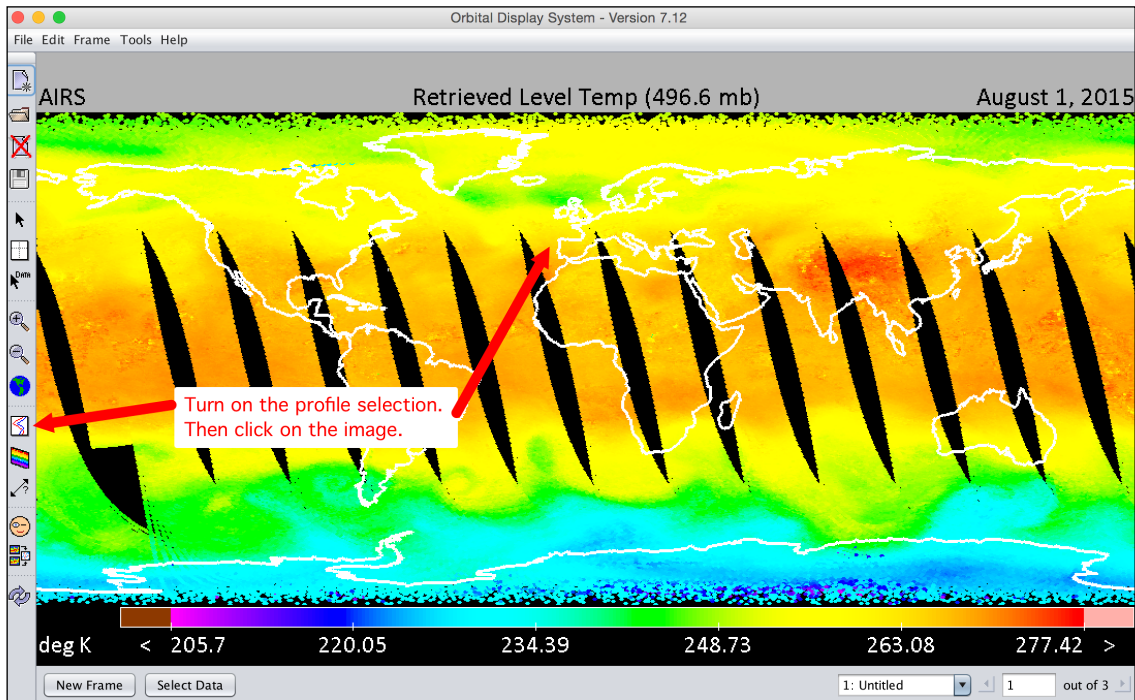
# Zooming

Zooming in or out is done by selecting the desired tool and then clicking on the area of the image that will be the focus of the new image. The new image will be centered at the point where the image is clicked.

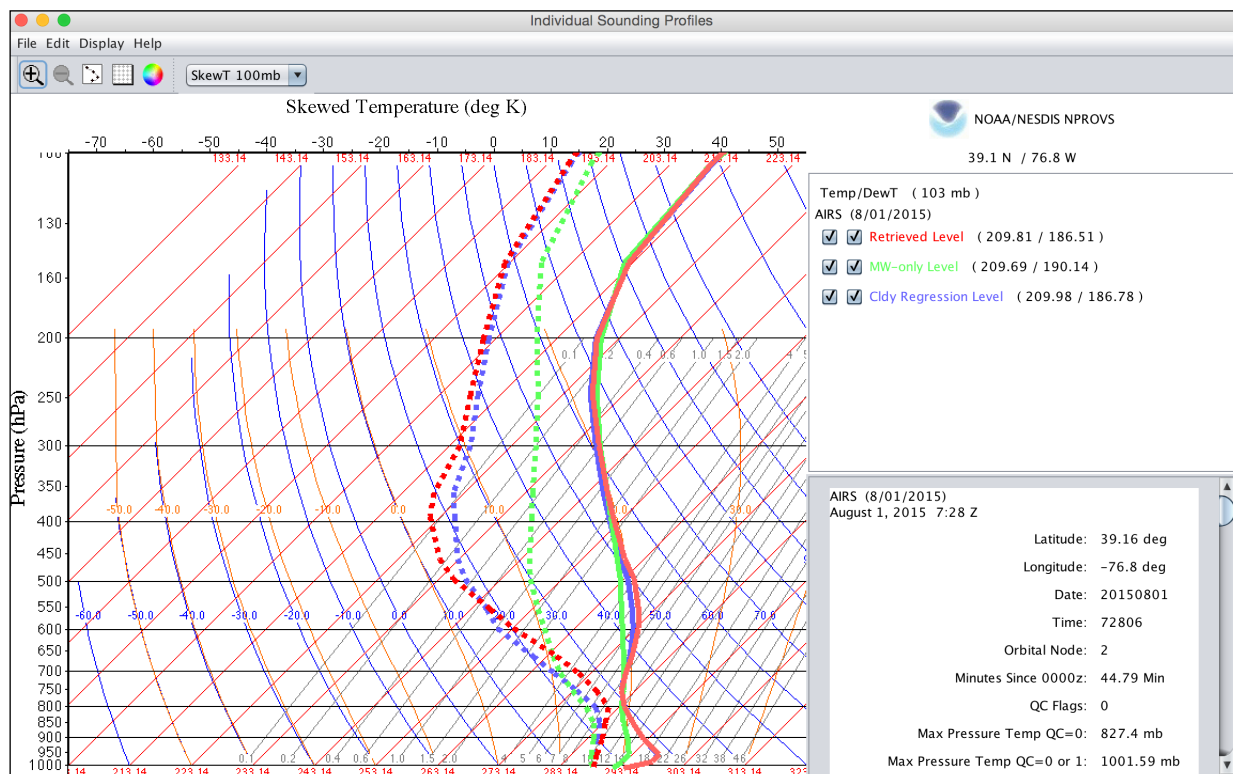


# Viewing Footprint Data

Raw data at any location on an image can be viewed. Also, if sounding temperature and moisture profiles are available, the profiles can be viewed.

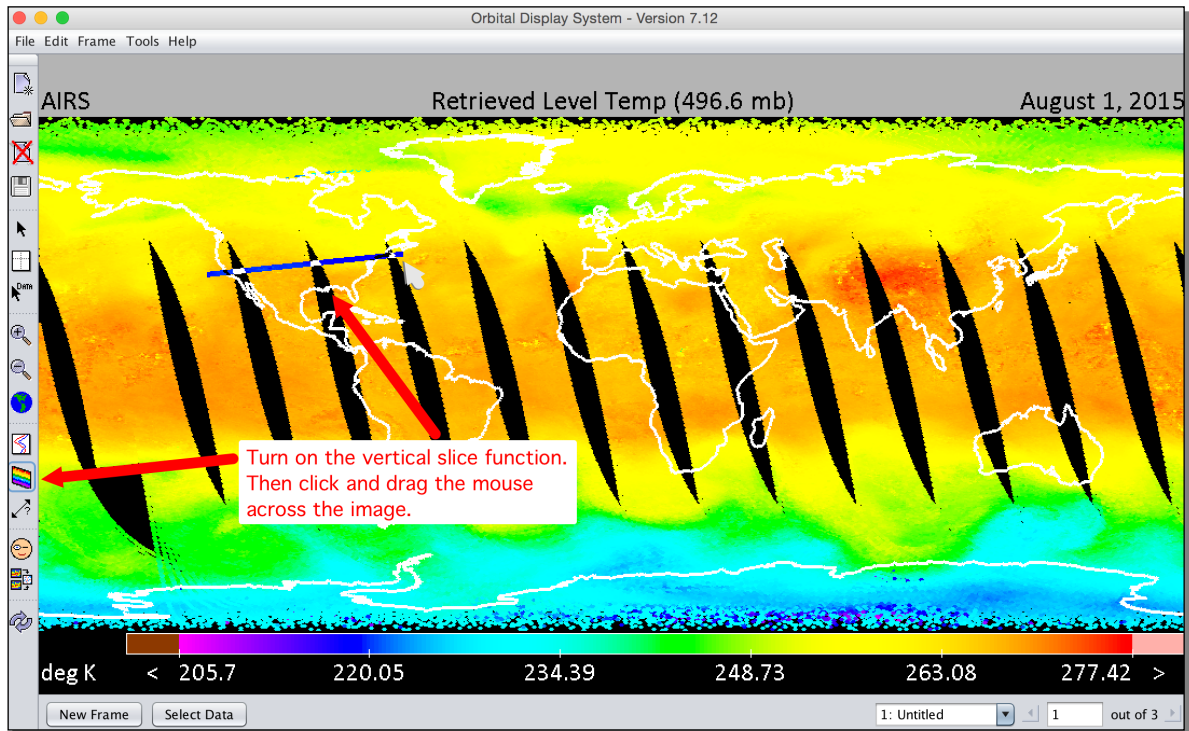


Data from the selected footprint will appear in a new window:



# Viewing Vertical Cross-Sections

If a file contains temperature and moisture profile data, it is possible to view vertical cross-sections of the atmosphere.



A new window will appear that contains the vertical cross-section of the atmosphere for each available temperature and moisture profile

