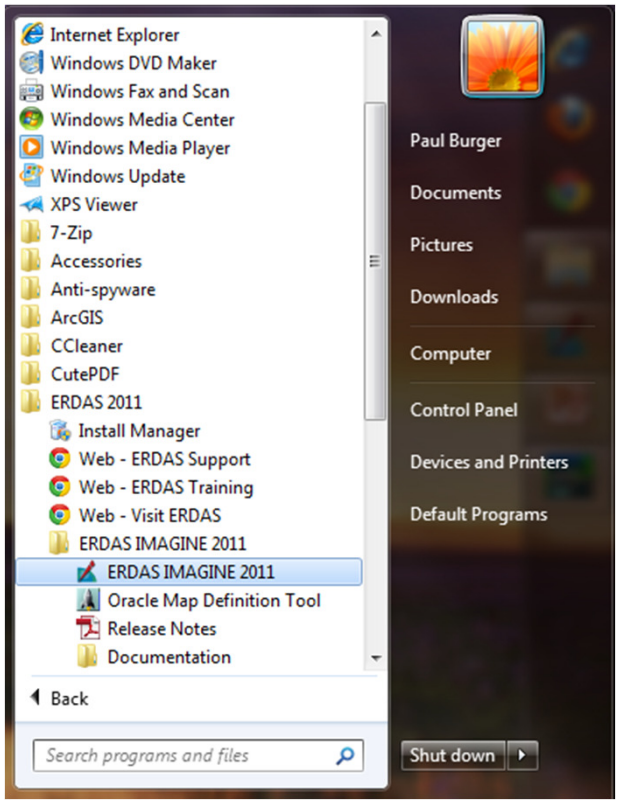
# GEOGRAPHY 315:
# Geographic Information Systems

ERDAS Imagine

Pre-Lab Exercise

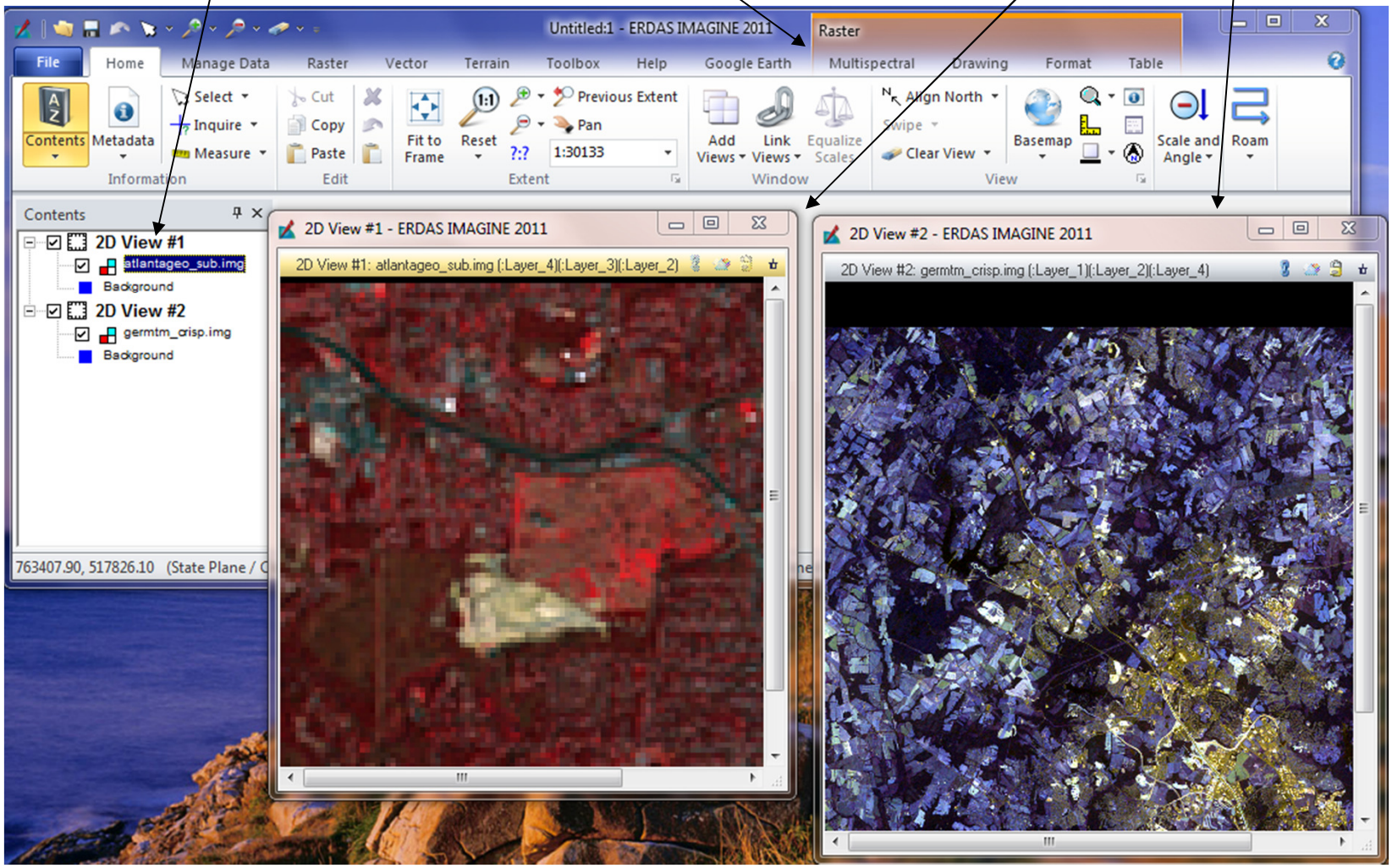
This handout was made for you to get a cursory exposure of some of the ERDAS IMAGINE tools you will be using in your Geog 315 lab.

To begin using ERDAS IMAGINE, double-click on the ERDAS IMAGINE icon on your desktop or follow through the start menu under the directory:
**Programs > ERDAS 2011> ERDAS IMAGINE 2011**

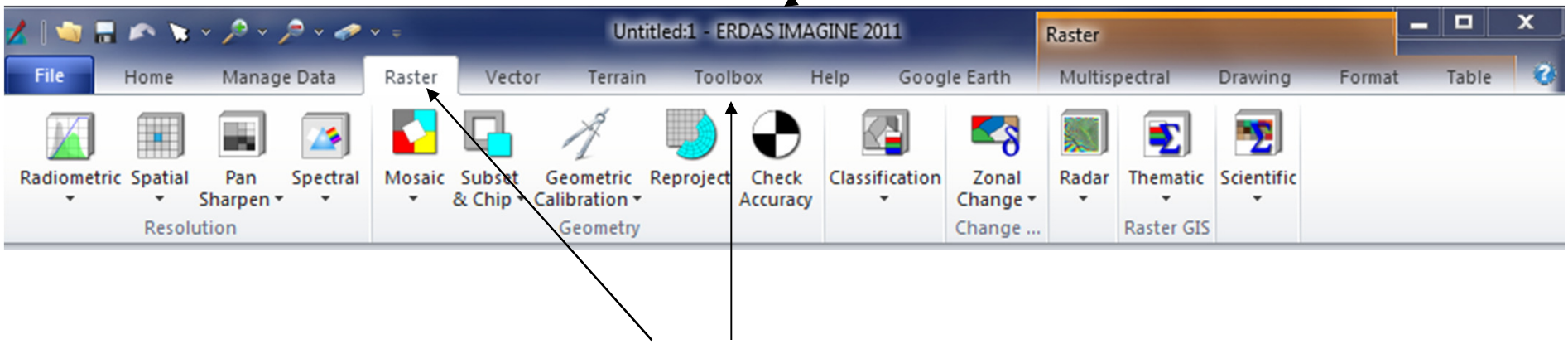



The session will open with Menu's across the top of your desktop and a 2D View #1 window in the ***Contents***

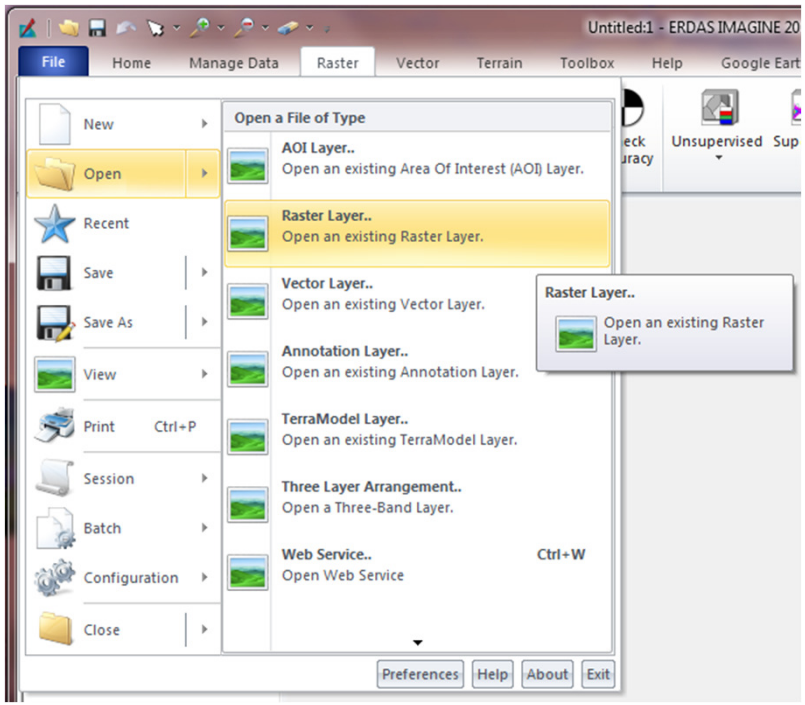
Each **View** window can display one or many images as layers. Also, multiple **Viewers** can be displayed at the same time.



ERDAS IMAGINE is a sophisticated GIScience software package based upon a Windows environment. Many of its capabilities are taught extensively in other GIScience courses. You can also explore some of these capabilities through On-line Help.

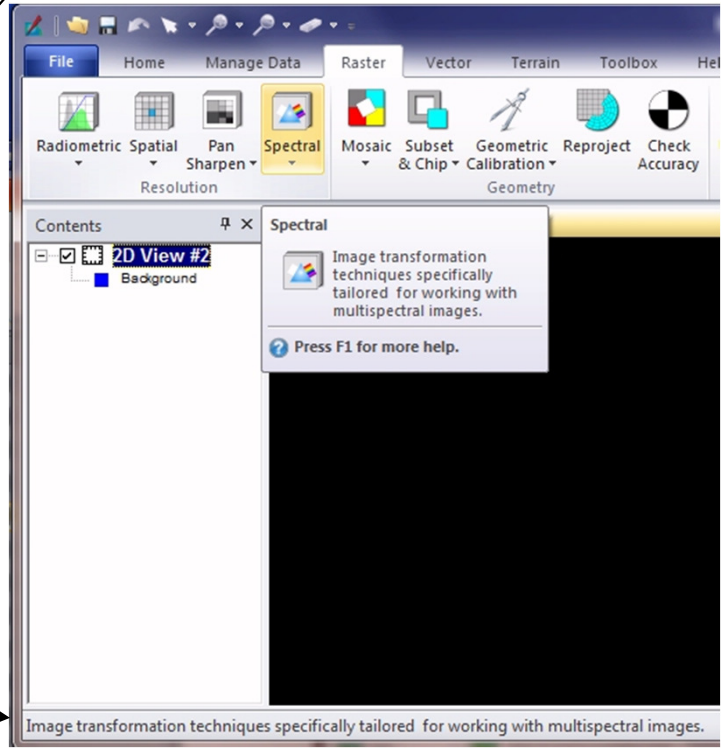



The **Icon Panel** contains the various components and add-on modules that were purchased with the system. There are two components that you will be using throughout your Geog315 lab: ***Raster*** and ***Toolbox***



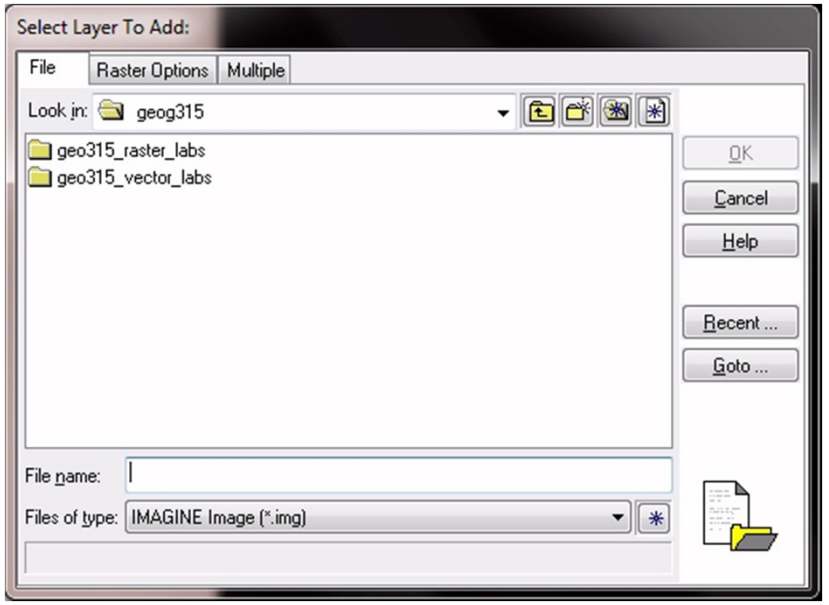

A *raster image* can be brought into your View by one of several ways:

- File > Open > Raster Layer
- "Right-Mouse" the *View* and select 'Open Raster Layer'
- "Control- O"

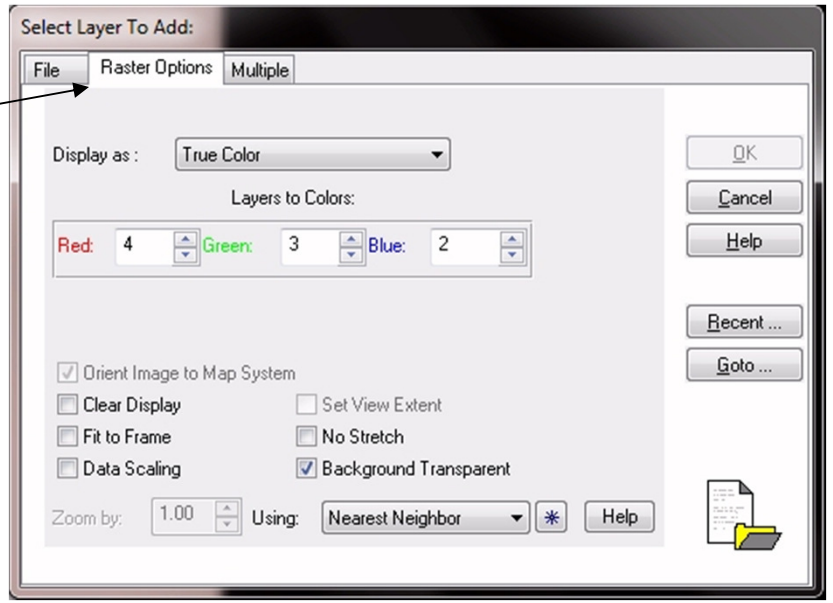




The *status bar* at the bottom provides a short description of the commands / icons designated by your cursor.

When selecting one of the Open Layer sequences, a directory menu (much like the Microsoft Windows Explorer directory) will appear.



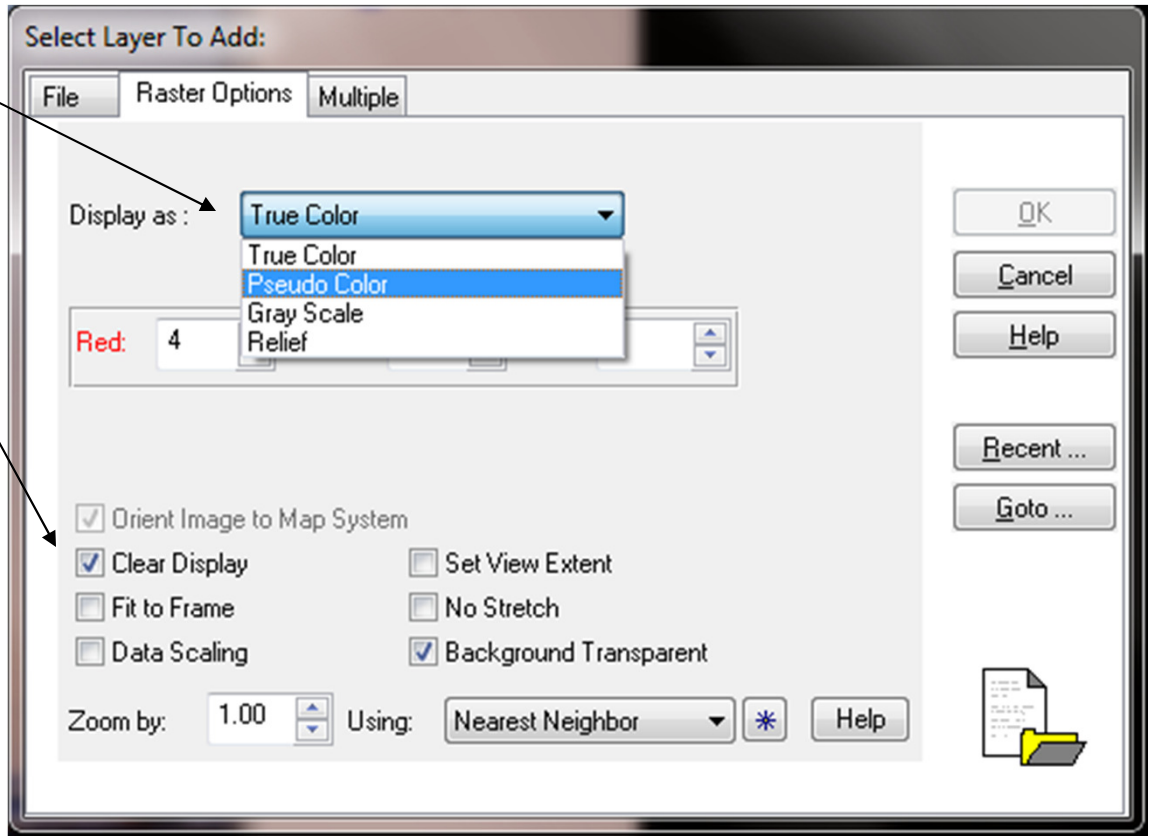

The Raster Options tab at the top contains other vital information you should consider before opening a file.



The Display pull-down menu allows you to select the necessary color scheme for your application.

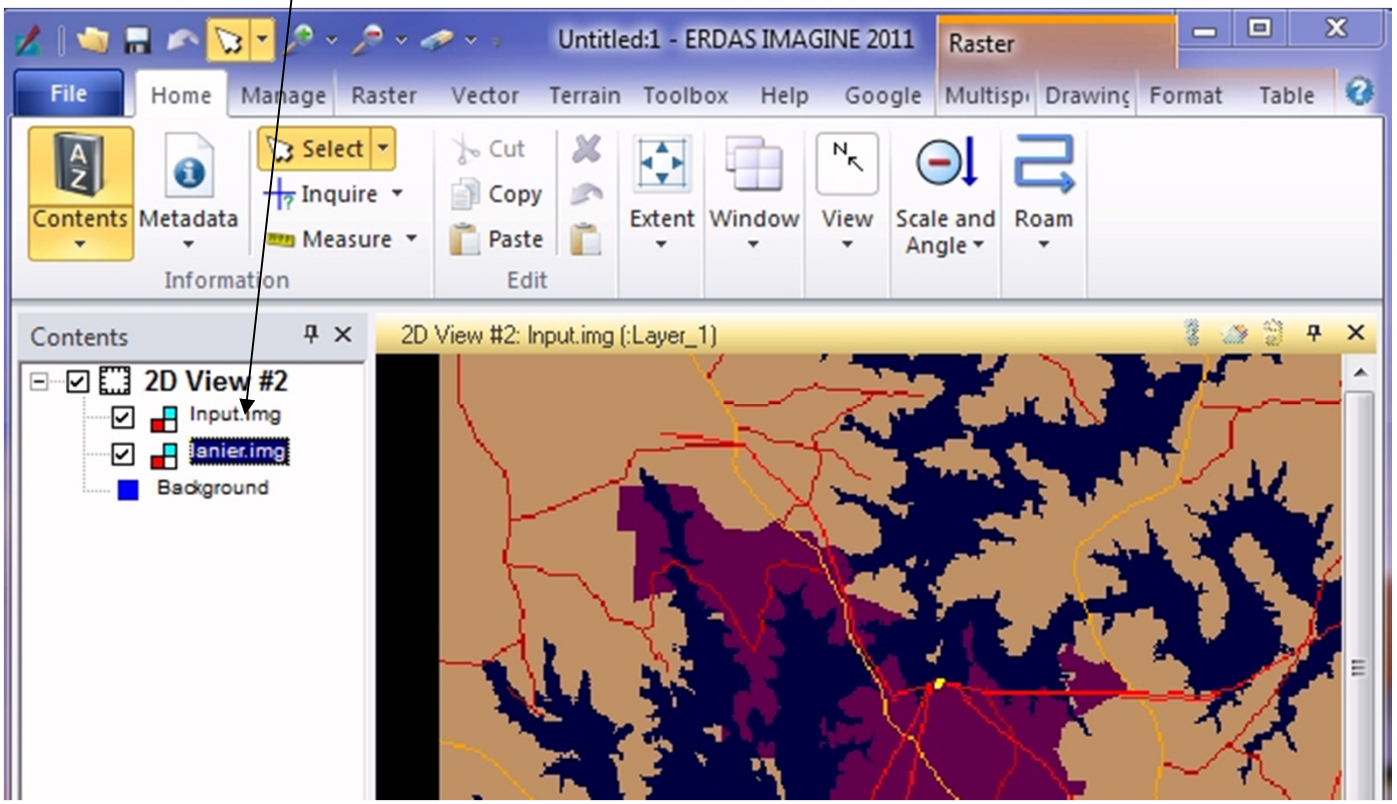
Removing the Clear Display check-mark option allows you to display more than one image at a time in a single Viewer.

This option can be very important because the default setting is set at 'clear' meaning that the previously displayed image will be cleared and replaced by the new image that you are bringing into your Viewer. If you do not wish for this to happen, remove the check-mark.



Within the same *View* it is often helpful to re-arrange layers. This can be done several ways:

- "**Click and Drag**" the layer you wish to move and place it above or below the others just like it was one of your *Map-like-Layers* in your conceptual *Cartographic Model*.
- **Right Mouse** the layer and select *Raise to Top* or *Lower to Bottom* from the menu that appears.

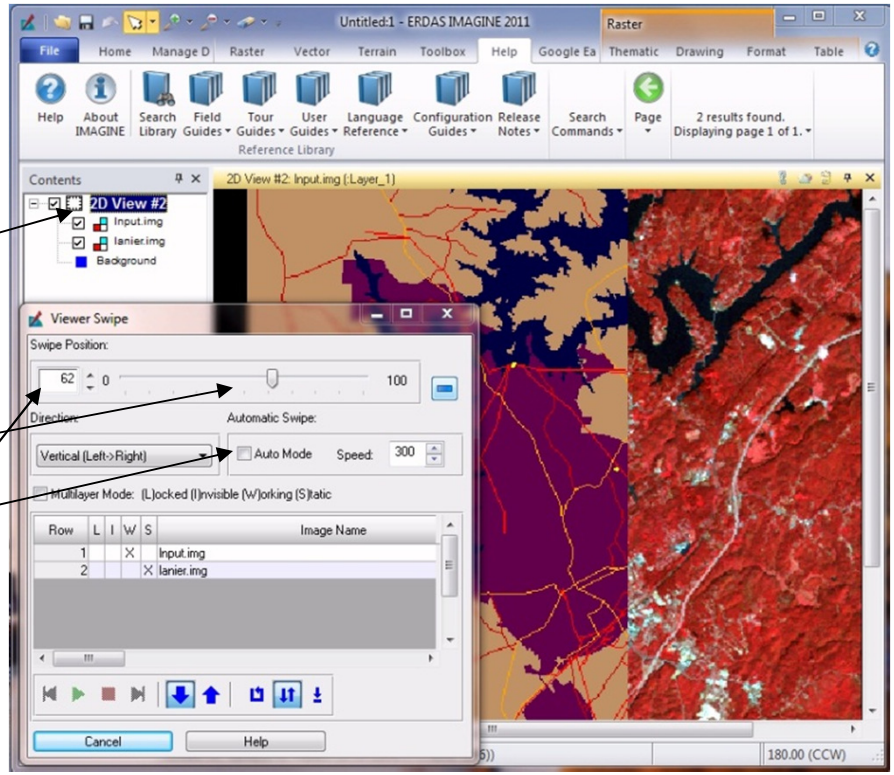


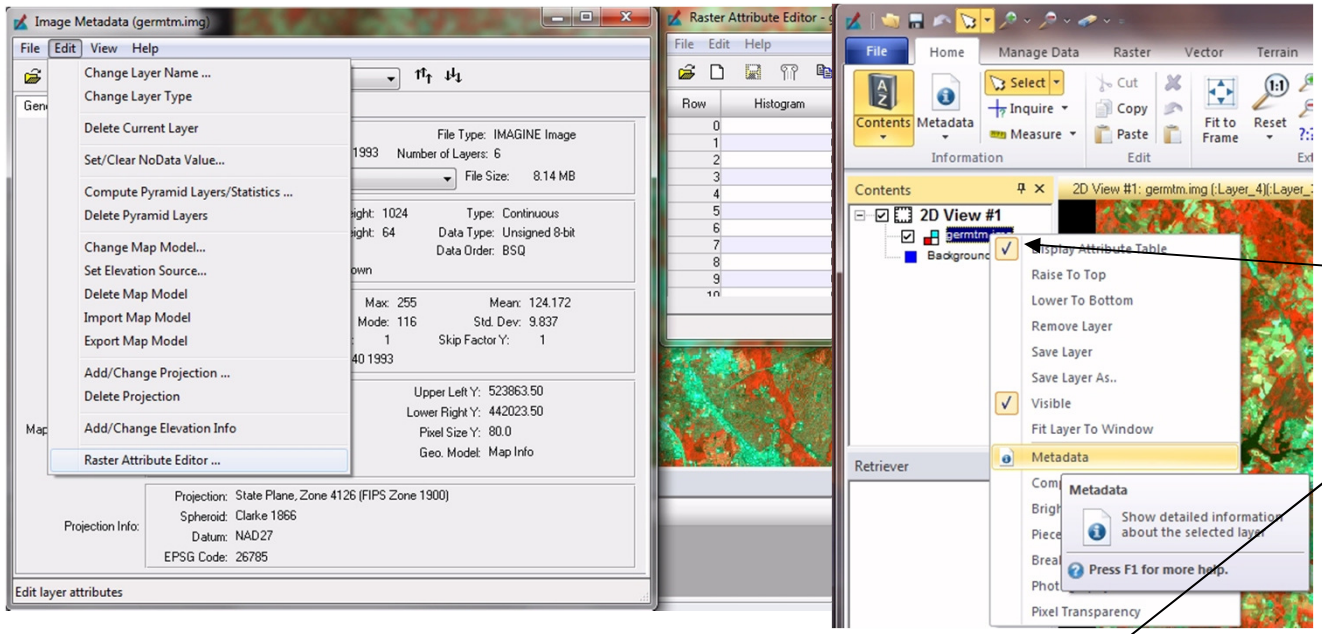
A useful function when displaying multiple layers in the same *View* is the **Viewer Swipe.** This is accessed by:

- *"Right Mouse"* on the **View** and select **Swipe.**

Your view will automatically spilt into the layers you have loaded. To operate the **Swipe** do one of the following:

- *Slide the Arrow Button* and drag it across from 0-to-100
- Select the *Auto* Mode box and a *Speed*
- Type a number in the *percentage box.*



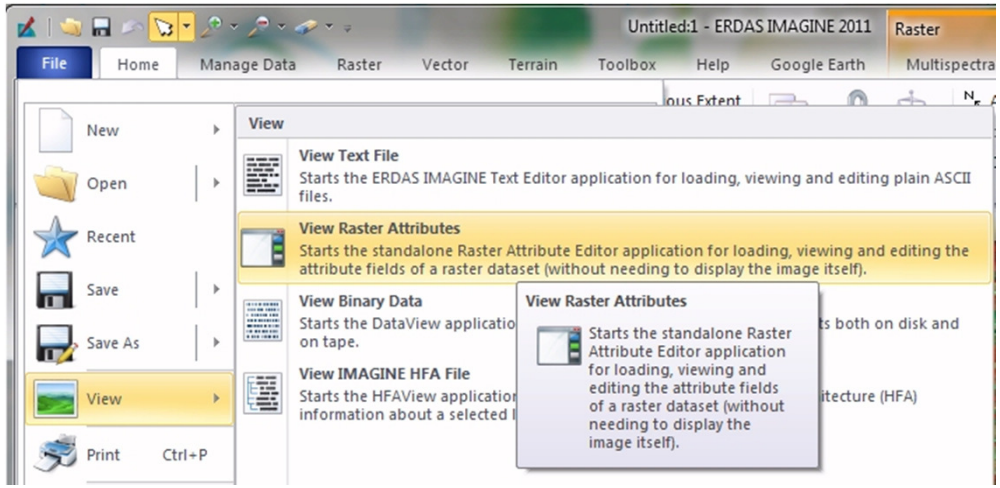


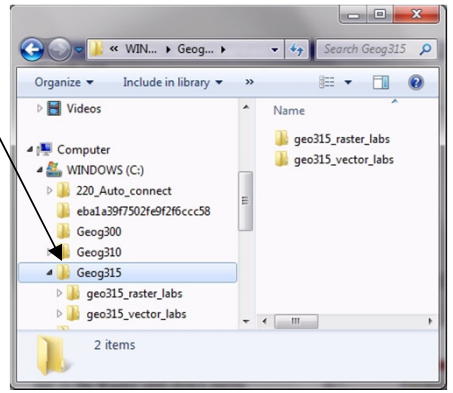

The **Raster Attribute Editor** allows us to conduct basic statistics, and edit aspects of our image's attributes. This is accessed by doing one of the following:

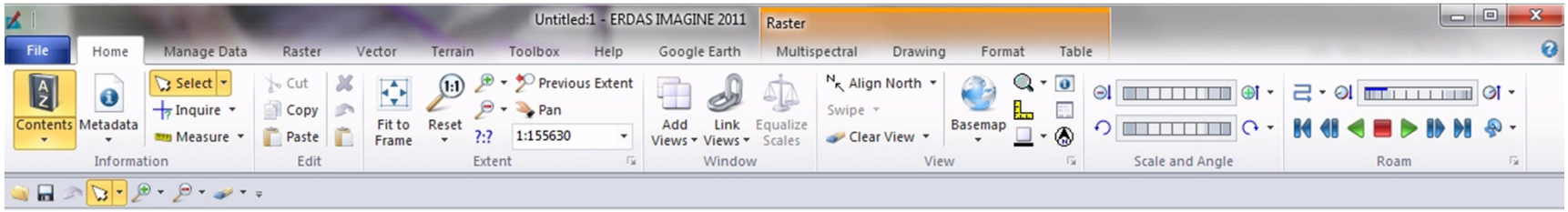
- *"Right Mouse"* on the *Image* > **Metadata > Edit > Raster Attribute Editor**
- **File > View > View Raster Attributes**

Changes here can be saved permanently to your image file.

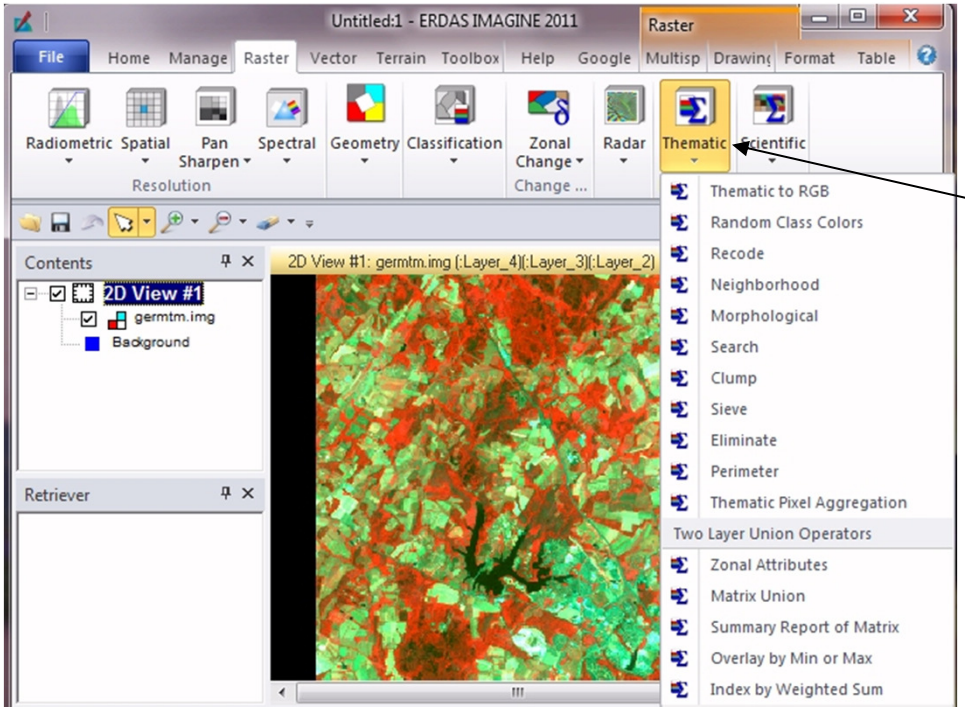
ERDAS IMAGINE saves its raster data layers with the same name as **.img** and **.rrd** files. These files are stored in normal directories on the hard drives. We will be saving our newly created files under **c:\Geog315\yourname**



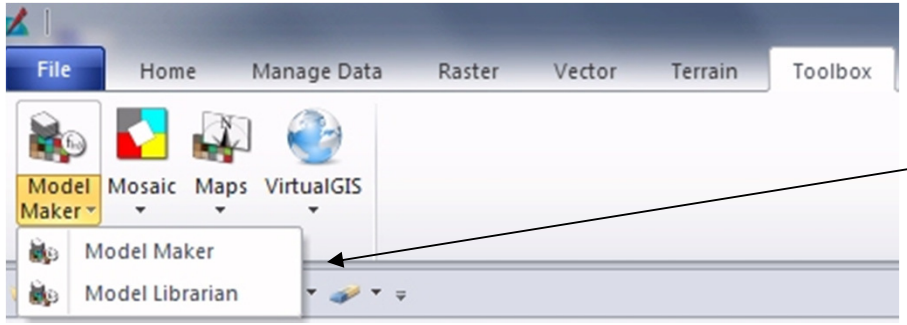






1. Open Layer
2. Close Top Layer
3. Image Information for Top Layer
4. Save Top non-AOI Layer
5. Print Contents of Viewer
6. Remove Contents from Viewer
7. Reset Zoom
8. Zoom In by 2
9. Zoom Out by 2
10. Measure Points, Lines, and Areas
11. Start/Update Inquire Cursor
12. Show Tool Palette for Top Layer
13. Start Profile Tools
14. Reset Window Tools
15. Zoom in by 2
16. Zoom out by 2
17. Roam image

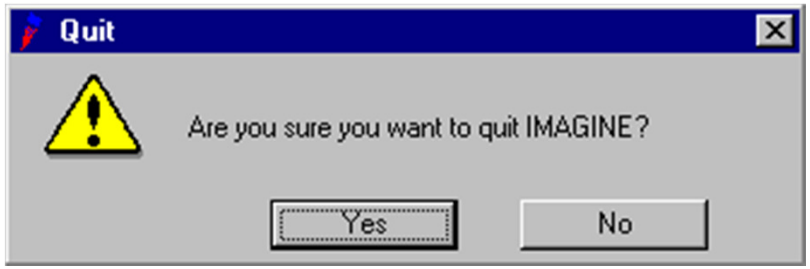


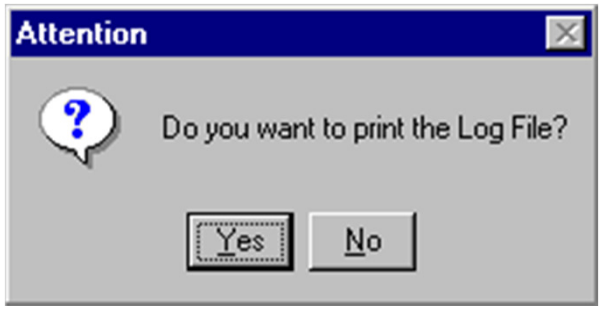

One of the main sub-components you will use in **Raster Tab** is the GIS Analysis found under the **Thematic** pull-down menu. These commands will enable you to enhance and analyze your *Raster Images*. This is where *the GIS functionality* is housed that we will be using in later labs.




The **Model Maker** is a component that allows you to create your own program that will run much of the functions used in *GIS Analysis* (under **Raster Thematic**. These programs can be designed to incorporate many steps into one. The output model file is saved as a .**gmd** file and can be opened only in the **Model Maker** window.

When you are finished, say yes to this window.




But, don't ever say 'yes' to this window!