WILD 5750/6750

LAB 5

OCTOBER 2, 2006

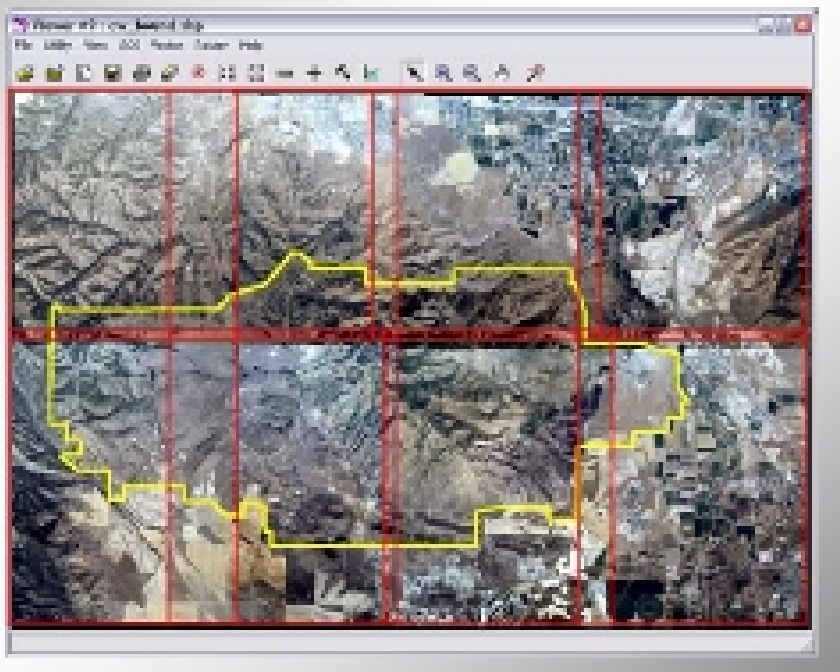
SPATIAL FILTERING
&
Using the Imagine Mosaic Tool

Data: Map Network Drive to \\tolkien\rs675001\labs\

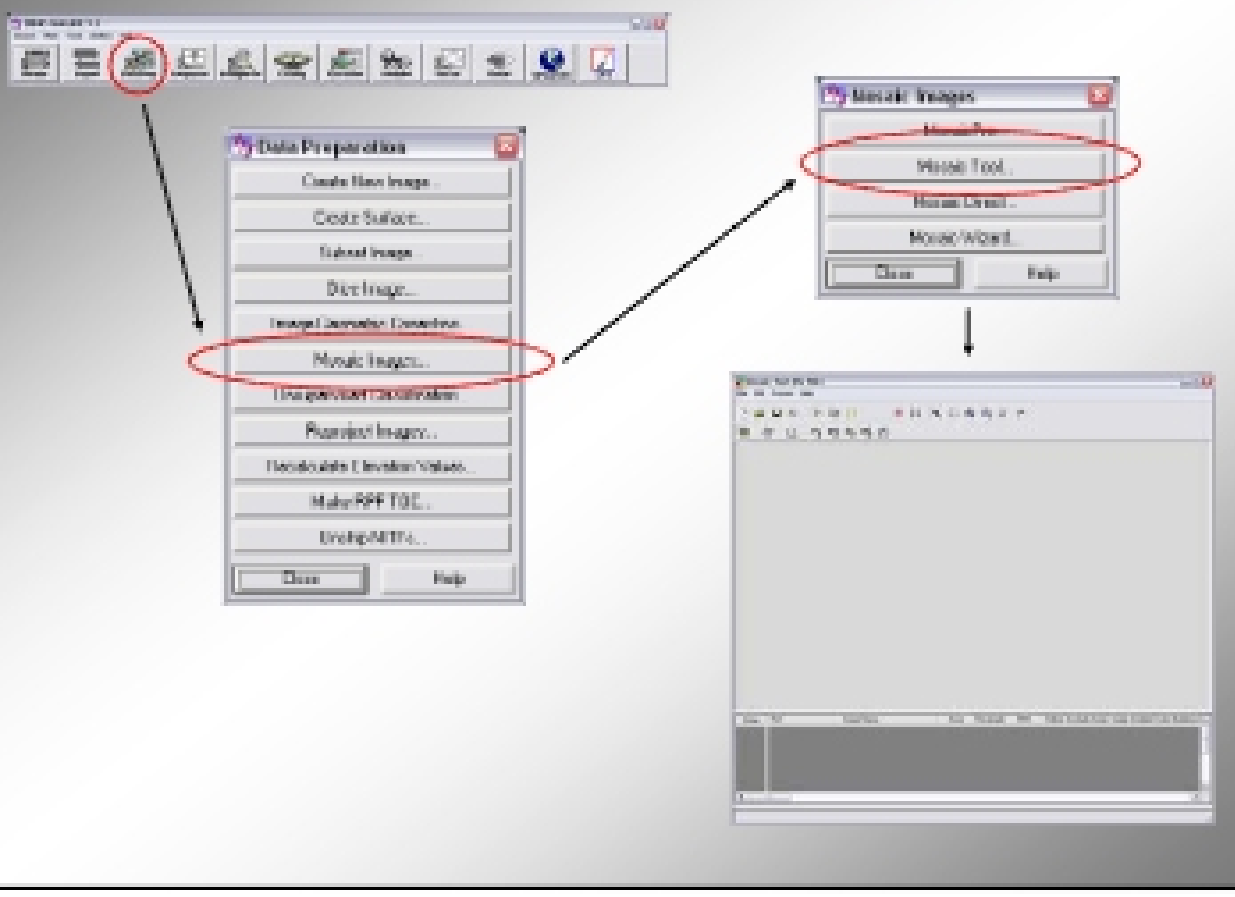
Data is located in the lab5 directory, copy the data to your workspace.

The Imagine MOSIAC tool

Often, a study area will fall across two raster data sets allowing for the need to mosaic (or merge) data sets together.



The Imagine MOSIAC tool



The Imagine MOSIAC tool

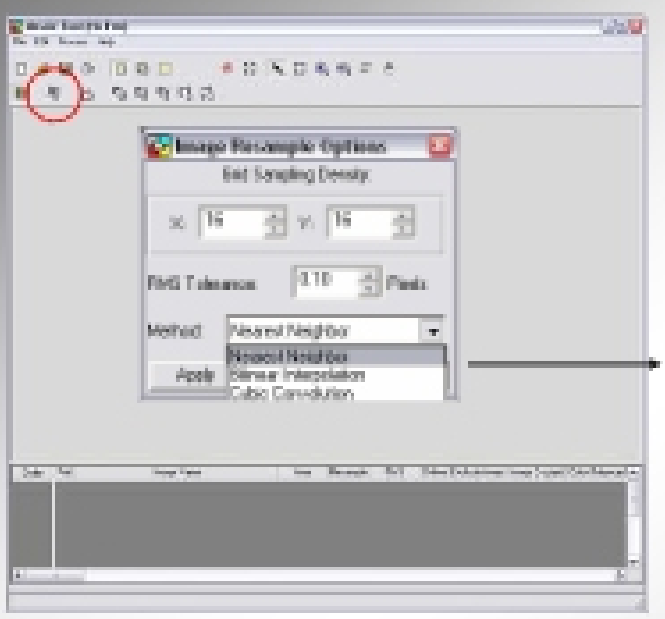
The Mosaic tool allows us to merge multiple raster data sets (of the same type) such as satellite imagery, aerial photography, or Digital Elevation Models into one continuous file.

Several issues must be considered when mosaicing images together:

- Resampling Method
- Mosaic Method (overlap function)
- Need for image balancing or color corrections

The Imagine MOSIAC tool

Resampling Method



Resampling Method: As discussed in class, each resampling method utilizes a different data sampling algorithm. Ensure that you select the proper method for your study.

The Imagine MOSIAC tool

Mosaic Method (overlap function)

Using the EDIT → SET OVERLAP FUNCTION menu, the user can specify the data overlap function desired.

- **Overlay:** The overlap area belongs to the last image opened, which is on top in the stacking order. *Often, for analysis, this is the preferred overlap method.*

- **Average:** The value of each pixel in the overlap area is replaced by the average of the values of the corresponding pixels in the overlapping images.

- **Minimum:** The value of each pixel in the overlap area is replaced by the lesser value of the corresponding pixels in the overlapping images.

- **Maximum:** The value of each pixel in the overlap area is replaced by the greater value of the corresponding pixels in the overlapping images.

- **Feather:** The overlap area is replaced by a linear interpolation of the pixels in the overlap. A pixel in the middle of the overlap area is 50% of each of the corresponding pixels in the overlapping images. A pixel 1/10 of the overlap from an edge would be 90% one image and 10% the other.