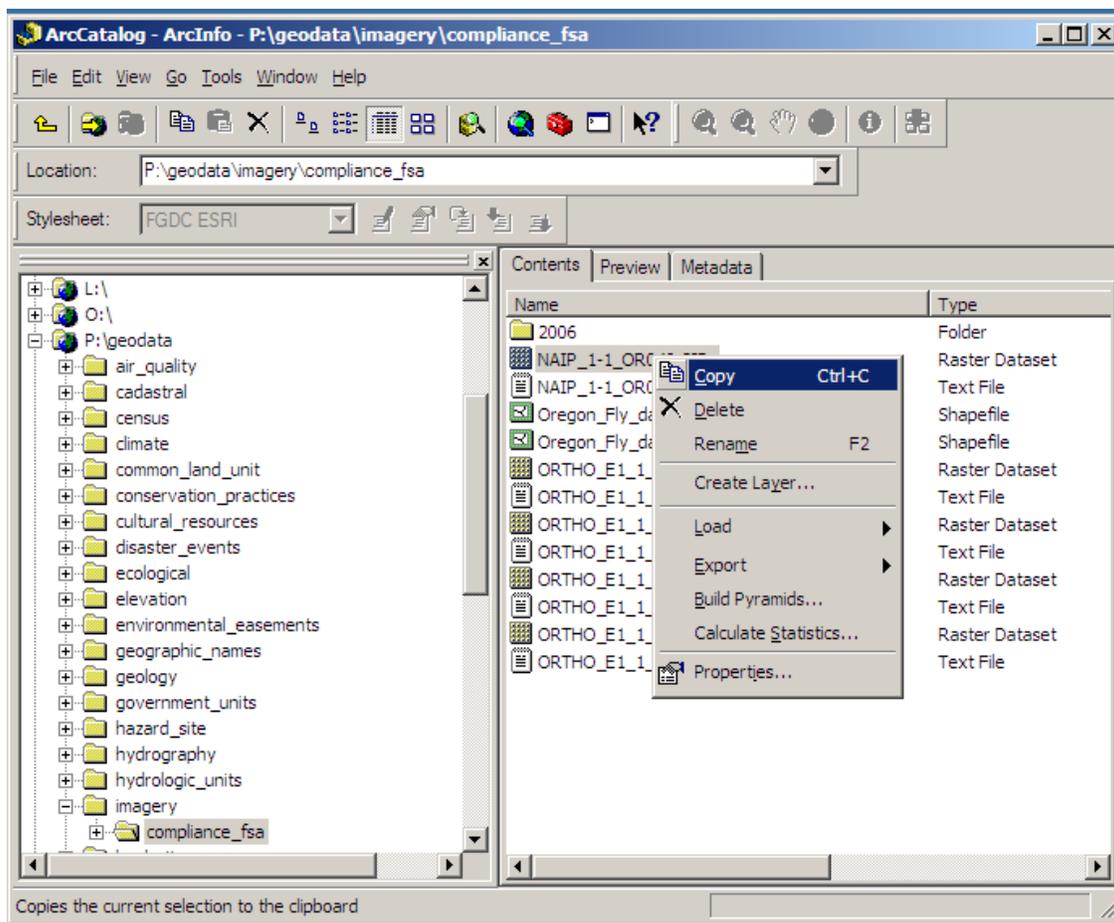# Setting the Spatial Reference for Raster (Image) Data

If the coordinate system for an image is not defined correctly the image may not display correctly with other GIS data. The following method shows how to define the spatial reference (coordinate system) for images in ArcGIS 9.2.

NOTE: you *must* know the correct coordinate system of the data before proceeding. Most data available in NRCS offices in Oregon is in UTM, zone 10 or 11, NAD 1983. One exception is the orthoimagery from 2000, which is in the Oregon Lambert coordinate system.

NOTE: You probably do not have file system permissions to write the spatial reference information to a server or the "I:" drive. If the image is on a server or the "I:" drive you must first copy it to your workstation before setting the spatial reference.

Copy the Image to Your Workstation

- If necessary, copy the image before attempting to set the spatial reference.
- Open ArcCatalog and browse to the server location or "I:" drive where the image is located.
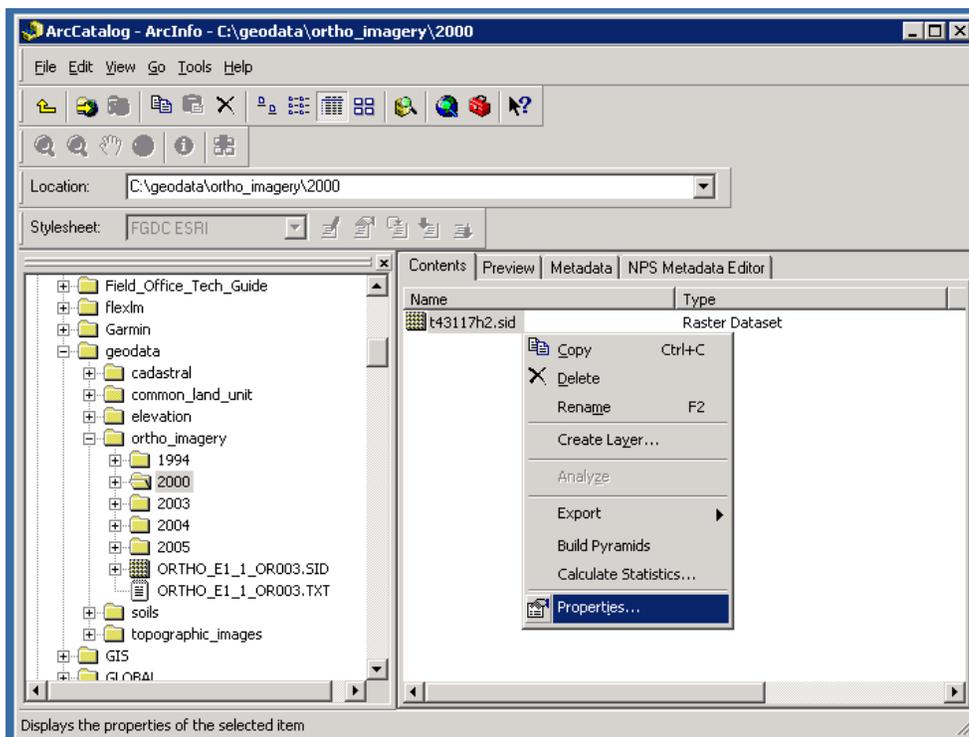- Right-click on the image and choose *Copy*.

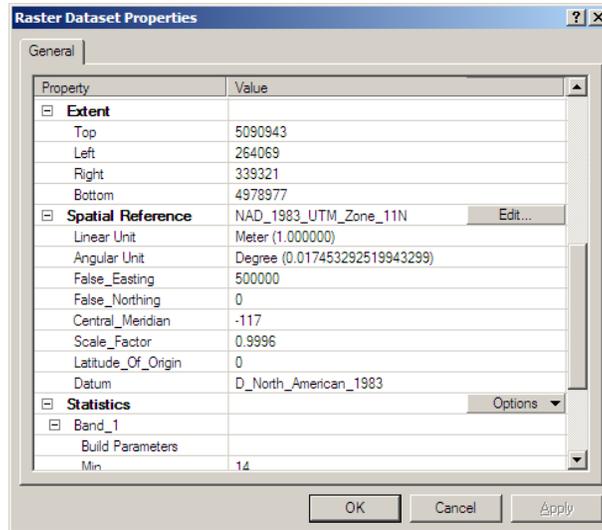- Navigate to a location on your workstation and paste the image.
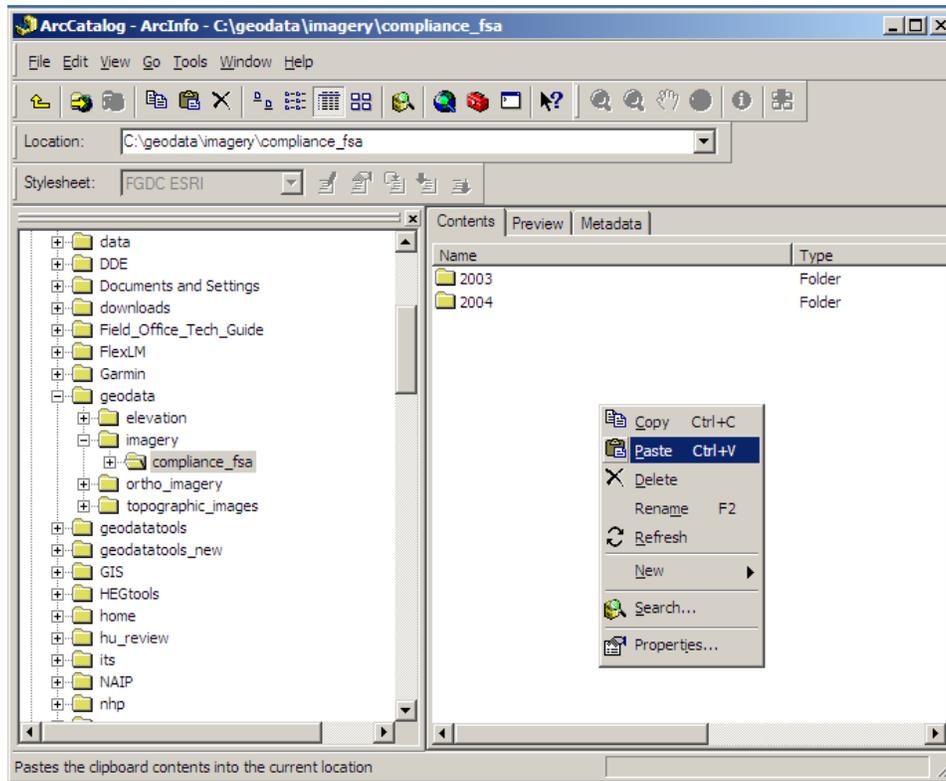

Set the Spatial Reference for an Image

- Open ArcCatalog and browse to the image you want to use.
- Right-click on the image and select *Properties*.

- In the Raster Dataset Properties, scroll down to *Spatial Reference*

- If the Spatial Reference is *<Undefined>*, click *Edit.*
- In the Spatial Reference Properties dialog, click the *Select* button, and browse to the correct coordinate system. Normally choose:
  - Projected Coordinate Systems
  - UTM
  - NAD 1983
  - Select NAD 1983 UTM Zone 10N or 11N as appropriate.

- Click *Add.*
- Click *Apply*.
- Click *OK* to close the *Spatial Reference Properties* dialog.
- Click *OK* to close the *Raster Dataset Properties* dialog.
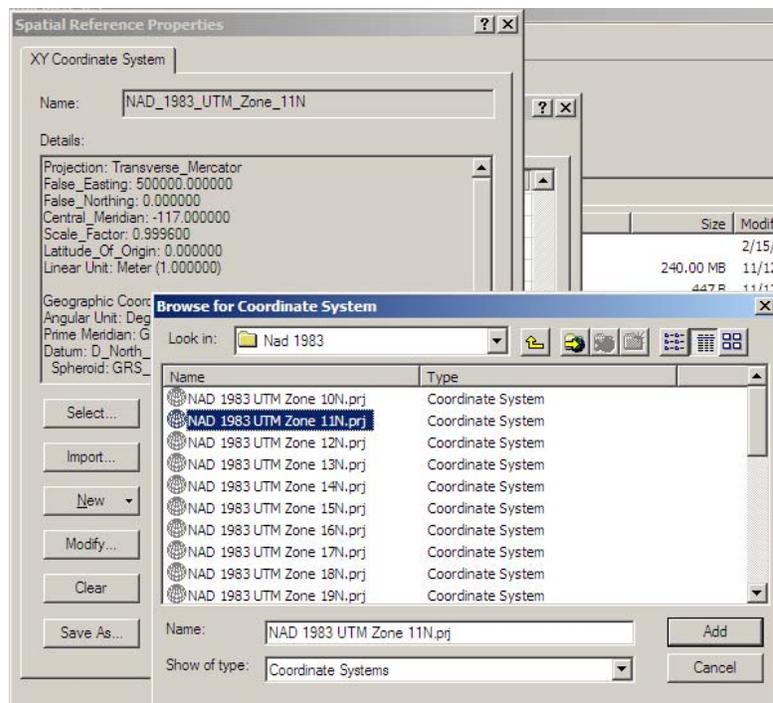
The image you copied to your workstation should now display properly in an ArcMap project.

2000 Orthoimagery

The 2000 orthoimagery quads were provided in the Oregon State Lambert coordinate system. To use these in ArcGIS 9.2 with other NRCS data, you must copy the images to your workstation, and define the spatial reference as above. The only difference is that you must select the appropriate coordinate system. When browsing for the coordinate system,

- In the Spatial Reference Properties dialog, click the *Select* button, and browse to the correct coordinate system. Choose:
    - Projected Coordinate Systems
    - State Systems
    - *NAD 1983 HARN Oregon Statewide Lambert Feet Intl.prj*
    - Caution: be careful NOT to select *NAD 1983 HARN Oregon Statewide Lambert.prj*. You will have to look in the *Name:* field to see the full name.

- Click *Add.*
- Click *Apply*.
- Click *OK* to close the *Spatial Reference Properties* dialog.
- Click *OK* to close the *Raster Dataset Properties* dialog.