

ArcView 3.2 GIS Exercise 4 – Geo-Referencing Images

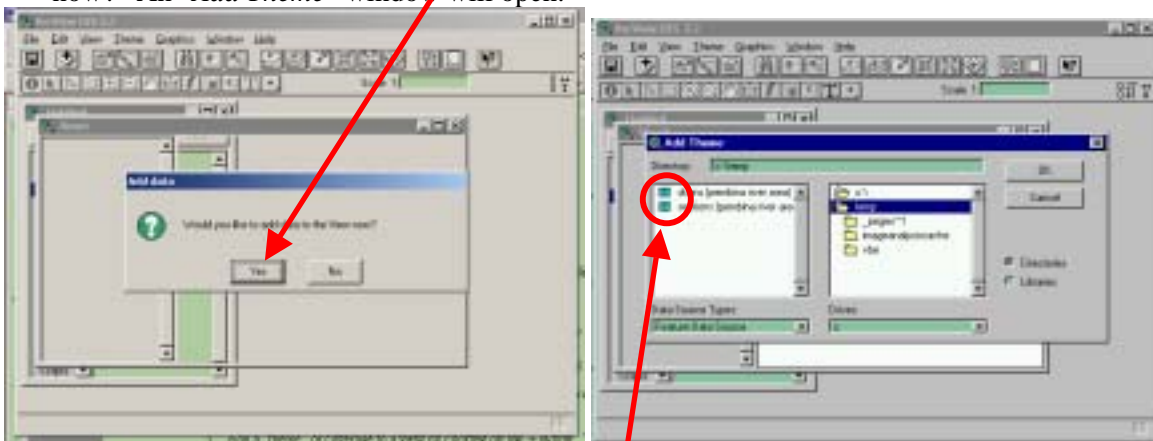
(Note: The ArcView Image Analysis extension is required for this exercise.)

Image formats for ArcView

1. ArcView accepts a variety of image formats including bmp, jpeg, tiff, imagine, and MrSID.
2. Images may be scanned, aerial photography, satellite imagery, etc.

Initial Steps to create a project:


1. Start ArcView. A “Welcome to ArcView GIS” window will open. Check “OK”.
2. In the Add Data window, click “Yes” to the question “Would you like to add data to the view now?” An “Add Theme” window will open.

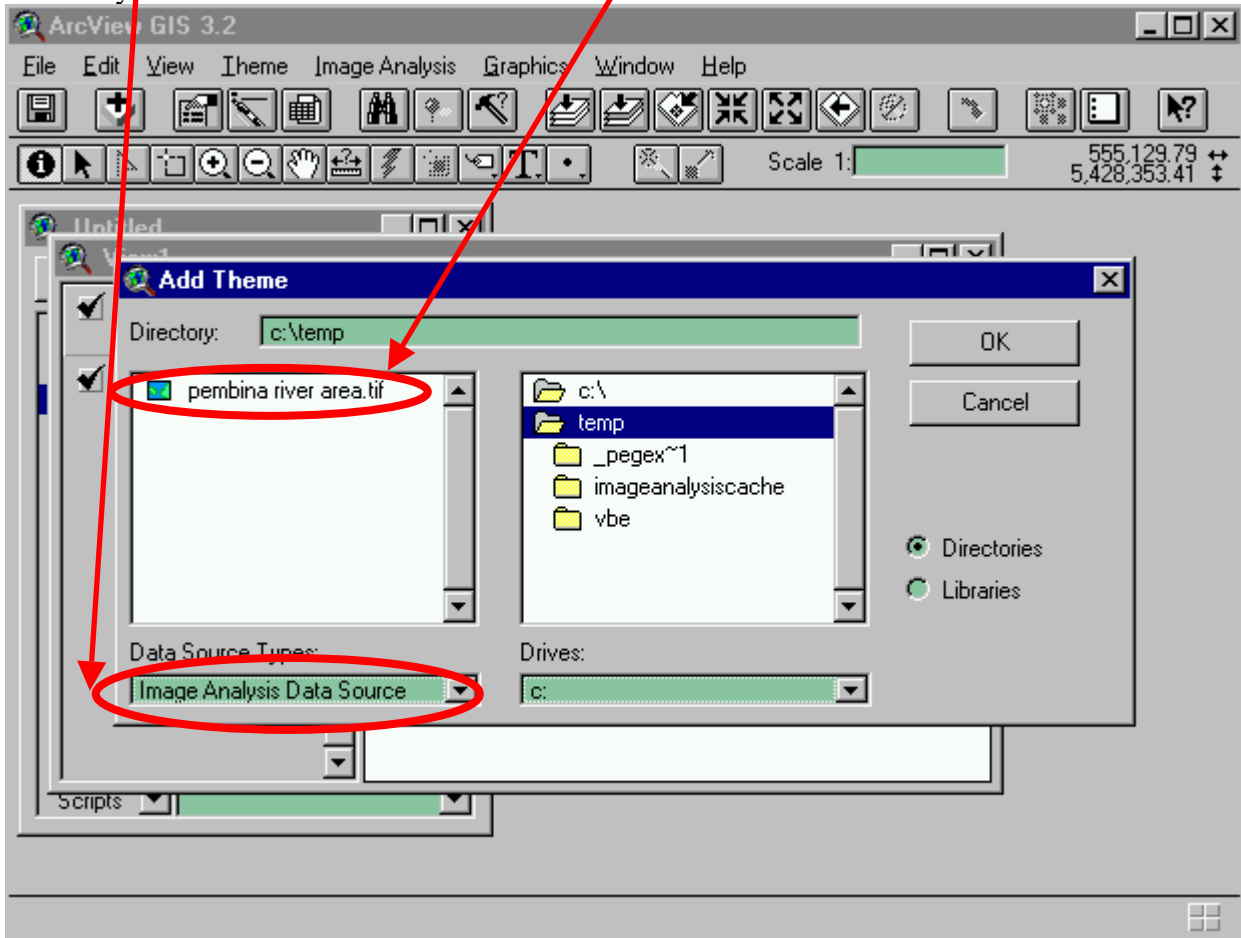


3. Load a theme in the view window that contains the area where the image belongs. In the “Add Theme” window navigate to the directory containing the data on the right, click on the “appropriate” directory, then click on “sections (pembina river area) utm 83-14” and “drains (pembina river area) utm 83-14” file in the left window. Click “OK”.
4. Display the themes in a view by checking the boxes in the view legend beside the theme names.
5. Set the theme properties for the “sections (pembina river area) utm 83-14” to an empty polygon.

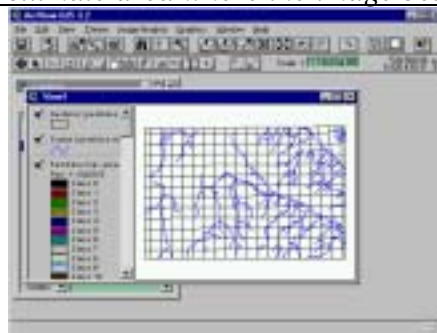
Adding Images:

Load the Image Analysis extension. Extensions are found in the File pulldown menu.

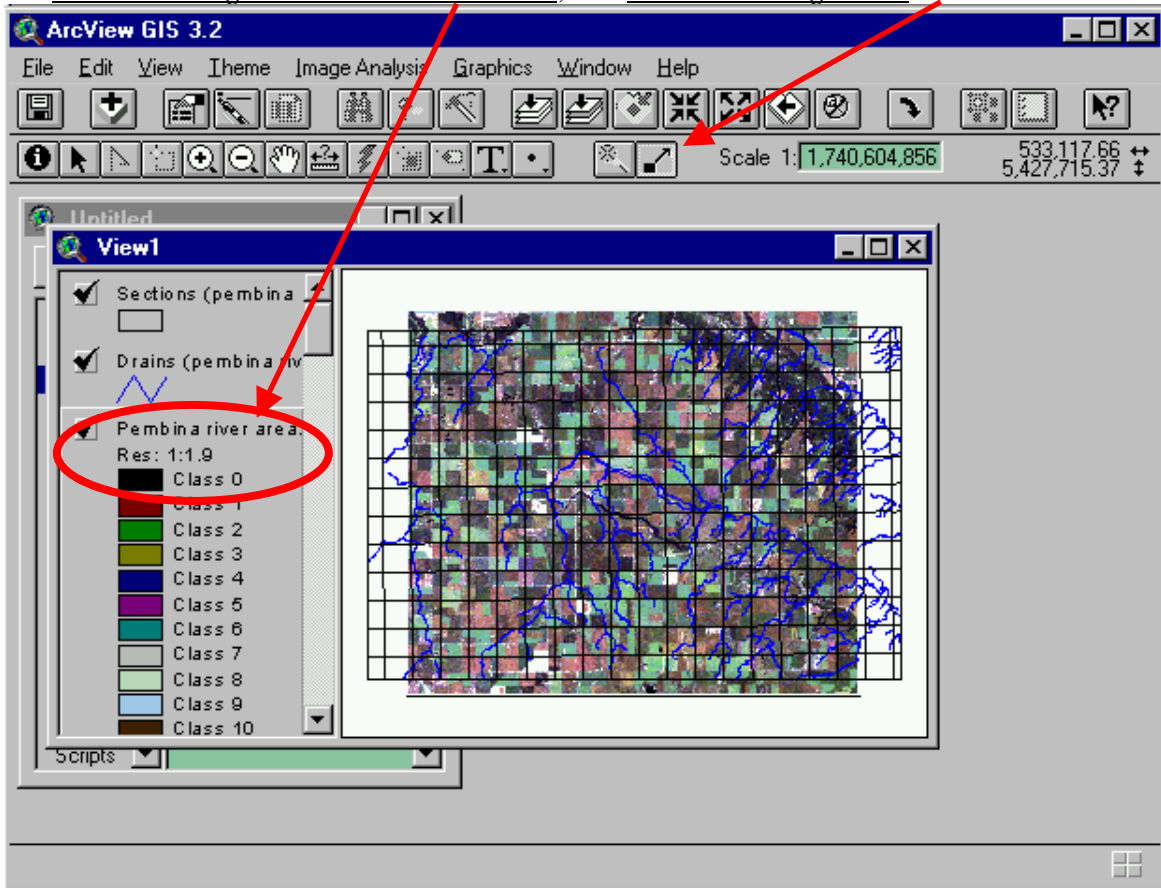
6. Click the Add Theme button  to add an image to the view. Choose “Image Analysis Data Source”.



7. Click the display button in the table of contents to display the image. (Note that the theme is not visible because the image is not geo-referenced.)
8. Zoom the view to the approximate area where the image belongs.



9. *Make the image theme the active theme, and select the “Align Tool”*



10. *Position the image beneath the layer that contains the geo-referencing locations.*
11. Proceed to geo-reference the image by successively selecting points on the image followed by real-world points on the referencing theme. (Each successive point referenced will create a “link” on the image. Links can be selected and deleted if they do not improve the image position.)
12. When the image is appropriately geo-referenced, save the image. (ArcView will ask whether or not you would like to save the control point links as a shapefile. The image will be geo-referenced whether or not the links are saved as a shapefile.)

