GE110 Fall 2008 - Lab 9

November 17, 2008

Extensions & Scripts

Working Directory D:\GE110\Lab_9

▽ Extensions - What is available in the Lab

- ✓ **3D Analyst** - Three-dimensional visualization and analysis. Includes ArcGlobe and ArcScene applications. Also includes terrain data management and geoprocessing tools.
- ✓ **ArcScan** - Performs raster-to-vector conversion tasks on scanned documents, including raster editing, raster snapping, manual raster tracing, and batch vectorization.
- ✓ **Data Interoperability** - Adds the ability to directly read and employ more than 60 common GIS vector data formats, including many of the evolving GML specifications.
- ✓ **Geostatistical Analyst -** Advanced statistical tools for surface generation and for analyzing and mapping continuous datasets. Includes exploratory spatial data analysis tools providing insights about your data distribution, global and local outliers, global trends, level of spatial autocorrelation, and variation among multiple datasets.
- ✓ **Maplex -** Adds advanced label placement and conflict detection to ArcMap. Used to generate text saved with map documents and as annotation layers in the geodatabase.
- ✓ **Network Analyst -** Allows you to perform advanced routing and network analysis.
- ✓ **Publisher -** Publish data, maps, and globes authored using ArcGIS Desktop. With ArcMap and ArcGlobe, you can author interactive maps and globes and then publish them with ArcGIS
- ✓ **Schematics -** Enables generating, visualizing, and manipulating diagrams from network data coming from a geodatabase or any data that has explicit attributes showing connectivity.
- ✓ **Spatial Analyst -** Includes a broad range of powerful raster modeling and analysis features that allow you to create, query, map, and analyze cell-based raster data. ArcGIS Spatial Analyst allows integrated raster–vector analysis.
- ✓ **Survey Analyst -** Tools used by surveyors and GIS professionals to create and maintain survey data in ArcGIS.
- ✓ **Tracking Analyst -** Real-time and historic data display and temporal analysis.

▽ Command Line - The Command Line window is another method for executing a tool. To open the Command Line window, click the show/hide Command Line window button on the standard toolbar. In the Command Line window, you type the name of the tool followed by its parameters. The text you type is called the command line. Pressing the Enter key executes the command line.

- ✓ Clip_Analysis

▽ Model Builder - Geoprocessing allows you to chain together sequences of tools, feeding the output o one tool into another. You use a geoprocessing model to chain tools together, and ModelBuilder, is how you create models.

- ✓ Add earthquakes and clip box
- ✓ Add Toolbox – Analysis Tools > Extract > Clip & Buffer (10km)
- ✓ Add Connections

∇ Customizing

- ✓ Right click in the tool bar area

∇ Scripts

- ✓ **MapBook** - A map book is a multipage document based on a dataset and an index grid representing the pages. A new utility for ArcMap, available for download at no charge, provides a wizard that automates map book production and can print or export any or all of the pages in a map book.
- ✓ **ET_Geowizards & ET_GeoTools** – Provides added functionality to ArcGIS
- ✓ **EZProfiler** - This program could plot the profile chart from contour(Polyline),TIN,Raster layers(*.shp,GeoDatabase...) by many ways at the same time.
- ✓ **Hawth's Analysis Tools** - These tools were developed to fill a gaping hole in GIS functionality: basic statistical and spatial analysis operations that are commonly required in spatial ecology research

∇ Sources for Scripts

ESRI Support Center - http://support.esri.com/index.cfm?fa=downloads.gateway
ESRI Develop Network - http://edn.esri.com/index.cfm?fa=downloads.gateway
ET Spatial Techniques - http://www.ian-ko.com/

∇ Stand-Alone Tools

- ✓ **GeoMapApp** - an application which permits users to browse bathymetry data from the world's oceans, generate and download custom grids and maps, and explore a variety of other data types.
- ✓ **http://www.geomapapp.org/index.htm**
  - A new "Earthquake Focal Mechanism Solutions" data viewer is available via "Custom Data Viewers" in the "Available Data" menu. This viewer displays focal mechanism solutions of the Global CMT Catalog