

**First Things First:** A Presentation Using Arcview GIS (Geographical Information Systems) in Higher Education Planning. Includes Course Handout and question and answer report.

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**Location:** Ohio Board of Regents First Annual HEI Users Conference Agenda  
@ Central Ohio Technical College

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**Q/A Report from presentation  
Arcview GIS**

**Q:** What are some more examples of application topics?

**A:** Zoning issues, emergency preparedness, disaster management, route planning, franchise/branch positioning, Census methods, marketing and many more. Applications specific to HEI planning are still being tested and developed your input is welcome. If there is something in particular you would like to see displayed spatially send comments to [e.frey@CSUOHIO.edu](mailto:e.frey@CSUOHIO.edu). Obviously some HEI data is available only through restricted queries, and the appropriate security clearances are required. Charts, graphs, tables and maps can be produced from a GIS.

**Q1:** How is HEI tabular data added to maps?

**A1:** HEI database information and many other tabular data sources can be presented on maps once the information is linked to a base map. Entire lists of address information can be geo-coded with the click of an icon. Linking of tabular data (non-geographic features and attributes) to the geographic features of a map (census track, zip-code, city name, or other geo-coded theme) increasing display options. Once campuses or students are geo-coded to a base map any data features linked to the students or colleges by name can be displayed geographically. Information can be organized, queried, summarized and analyzed geographically using Arcview and its extensions.

**Q2:** How do we get more information about GIS systems?

**A2:** visit The NODIS Northern Ohio Data & Information Service website at <http://urban.csuohio.edu/~ucweb/nodis/gis/nodisgis.html>

text references: Using Arcview GIS, ESRI Press, Redlands, CA, 1996  
Tim Ormsby and Jornell Alvi, Extending Arcview GIS, ESRI Press, Redlands, CA, 1999

**Q3:** How do state employees get this software?

**A3:** The state license is through Ohio Link  
See faxed copy of "Basic Facts about the Ohio Statewide ESRI Site License Program" your campus may already have the license

**Q4:** Will there be another workshop?

**A4:** If you are interested in a more in depth 2 day conference, the cost is 70\$ which goes to ESRI for workbook materials. Trainers are certified by ESRI. Call 216 687-2209 or send email to [m.salling@popmail.csuohio.edu](mailto:m.salling@popmail.csuohio.edu) to get on our mailing list, you will be notified when the course opens. If enough people respond a special session will be arranged.

## First Things First (session outline)

- What questions do we want to answer?
  - Students location relative to Campus
  - What departments in which buildings
  - Demographic distribution

### Creating Maps

- Selecting a base map
  - Data types: Arcview, Autocadd, images
  - Setting up the View (properties)
    - select data units: lat.-long, decimal degrees
    - projecting the view

### Data Sources

- program
- data supply warehouses
- internet: US federal Geographic Data Committee at [www.fgdc.gov](http://www.fgdc.gov)
- create your own: converting tabular data to shape files, heads up digitizing
- Service bureau and GIS consultants

### Symbolizing Features

- Legend Editor
- Labels
- Charts

### Tabular Data

- one record for each feature
- advanced query tools
  - spatial queries (by theme, proximity)
  - edit, calculate, summarize and join data tables
- Joining database tables to theme attribute tables
  - (arcview handles the relationship)*
  - when you join your table to a themes attribute table all the fields of your table are added to the attribute table. Then any of these fields can be used to symbolize, label, query or analyze the themes features
  - join is based on the values of the field in both tables. The name does not have to be the same, the data type has to be the same. Join numbers to numbers, strings to strings, Boolean to Boolean and dates to dates.