



TECH140: GIS Concepts for Planners

Planetizen webinar presented by Chuck Donley. Copyright 2009.

1. GIS Defined- information about place
 - a. Layers- Geography where
 - b. Attributes- what or how much
 - c. Graphic display- symbolize attributes
 - d. Analysis- identifying relationships
2. Vector
 - a. Point
 - b. Line
 - c. Polygon
3. Grid, Raster
 - a. Break world into same size squares
 - b. Single numeric, attribute field for each grid (land cover or elevation)
 - c. Original
 - d. Source Satellite- Remote sensing
 - e. Speed of processing
 - f. Limitations
4. Projection
 - a. Flat map on round earth
 - b. Each projection is mathematical representation
 - c. Offers advantages: more accurate area, display
 - d. Analysis requires known projection
 - e. UTM and State Plane
 - f. Consistent is most important
5. Accuracy
 - a. Level of accuracy determined at data creation
 - b. Satellite image pixels (centimeter, meter or decimeter) or GPS
 - c. Appropriate to application (locate pipe or defining forested area).
 - d. Data set size, more decimal places
6. Metadata
 - a. Source
 - b. Accuracy
 - c. Attributes
 - d. FGDC standards
7. Complexity
 - a. Interface
 - b. Data preparation- accuracy, projection and metadata

- c. Data import or conversion
- d. Analysis techniques
- e. GIS professional
- 8. CAD- Computer Aided Design
 - a. Design tool-fast, accurate drawing
 - b. Merging of GIS and CAD- neither does the other perfectly
 - c. Import challenges
 - d. Projection
- 9. Navigation
 - a. Zoom
 - b. Pan
- 10. Data Storage
 - a. Shape- no topology
 - b. Geodatabase (personal, file)
 - c. Enterprise-shared (SDE)
- 11. Map Making
 - a. Scale
 - b. Legend
 - c. Title
 - d. Appearance- neat line, boxes
- 12. Analysis Tools
 - a. Buffer
 - b. Union
 - c. Clip
 - d. Etc.
- 13. Advanced Data
 - a. Topology
 - b. Network
 - c. TIN
 - d. Time- tracking
- 14. Visualization
 - a. Performance- speed of processing
 - b. Realism
 - c. Dynamic data display

Chuck Donley
Donley & Associates Inc.
509 N. Nevada Ave. #4
Colorado Springs, CO 80903

719 471 9835
303 641 3232

donleyco@gmail.com
www.donleyassociates.com