GIS Applications | Spring 2012

GIS Project Management
GIS: THE PROJECT
Question

Project Planning

Data Compilation & Collection

Data Management

Methodology

Data Analysis

Maps, Charts, Graphs, Reports
The Beginning

Questions to ask yourself:

• What is the mission, vision and objectives of the project?
• What needs to be achieved with the project?
• What methods do I use to meet those goals?
• What are the best practices in the field?
Planning Process

- Research question or problem
- Project description and overview
- Project management approach or strategy
- Project deliverables & objectives
- Definition of project success criteria
- Major milestones & target dates
- Other management plans – resource, schedule, cost, quality assurance, communications
Data Management

- GIS data can get complicated quick
- Place all your base data into a set structure
- Metadata is essential
- Use & set the default Geodatabase
- If you have an existing data structure that you want to change, start fresh (to avoid broken data links in previous projects)
- Document your data sources
GIS Data Structure by Location
GIS Data Structure by Topic
Layer Name: mjriv_fi

Description: This dataset originally came from Metro RLIS. After making a selection, it currently only contains the Willamette & Columbia rivers.

Credits:

Scale Range

You can specify the range of scales at which this layer will be shown:

- Show layer at all scales
- Don't show layer when zoomed:
  - Out beyond: <None> (minimum scale)
  - In beyond: <None> (maximum scale)
Item Description

Title: U.S. Cities

Tags:
point, cities, capitals, demographics, population, households, location, society, United States, 2000

Choose a template for your new map

- New Maps
  - My Templates
- Templates
  - Standard Page Sizes
    - Architectural Page Sizes
    - ISO (A) Page Sizes
    - North American Page Sizes
  - Traditional Layouts
    - Industry
    - USA
    - World
  - Browse for more...

[Dialog window for selecting a geodatabase]

- Look in: Applications
- Name: TryonCreek.gdb
- Show of type: Geodatabases

Default geodatabase for this map:
\psf\Home\Documents\ArcGIS\Default.gdb
Data Management

Create a standard directory structure for each GIS Project:

- Project folder
- Data by source
- Data by category (water, base map)
- Documents (data sources)
- Images
- Maps (jpgs, pdfs)
- Tables
Poor data management
Improved data management
Improved data management
Geodatabase as data management
Geodatabase as data management

GIS Data in the Geodatabase (GDB)
- Attribute Table
- Feature Class
- Cartographic Representation
- Annotation
- Dimension
- Relationship Class
- Raster Dataset
- Raster Catalog
- Topology
- Geometric Network
- Network Dataset
- Terrain
- Locator
- Survey Dataset
- Toolbox

Single-User GDB
- File GDB
- Personal GDB

Multiuser GDB
- Enterprise GDB
- Workgroup GDB
- Desktop GDB

RDBMS
Data Analysis & Methods

• Methods
  • Research on best practices
  • In-depth understanding of the content and processes being modeled

• Flow Chart or Model Builder
  • Documents process / methods
  • Allows replication
Question

Project Planning

Data Compilation & Collection

Data Management

Methodology

Data Analysis

Maps, Charts, Graphs, Reports
Outputs

• Drafts, Drafts, Drafts
• Never spend too much time on the 1\textsuperscript{st} draft of a map – starting point
• Do not take critiques personally
• Accept feedback, yet stand your ground
Role of a Successful Project Manager

1. Communicate. Be able to communicate clearly with all stakeholders

2. Planning & Organization. Build the proper foundation for successful project. Set up meetings, schedules, and deliverables

3. Problem Solving. Analyze problems and make timely decisions

4. Leadership. Be confident in your decisions without jumping to conclusions or making premature judgements

5. Strive for Excellence. This is your project and should reflect a piece of yourself.