POGIS

(Project Office GIS)

ArcView Extension

The what, why (who), where, and how of a customized ArcView extension.

MWGLAIUG'99 - Technical User Presentation
John DiGiovanni - M.J. Harden Associates Inc.

What is POGIS?

- POGIS - Project Office GIS
- An easy to use ArcView extension - customized using Avenue.
- Employs a standardized spatial data set.
- Customized tools for map browsing, viewing and creation of cartographic map layouts for output.
- Provides the framework for spatial analysis.

Who uses POGIS where & why?

- POGIS was developed for the United States Army Corps of Engineers, Kansas City District central office.
- The USACE Kansas City District has 18 regional office in four states (MO, KS, IA, and NE).
- No standards and poor organization of map data.
- The central office wanted to establish a standard data set for the regional offices.
- ArcView was chosen by the central office to be the vehicle for viewing the data.

The Challenges:

- Novice GIS users
- ArcView is complex for beginners
- Push button turn-key solution - how?

Solutions (how)

- POGIS was built so the novice user could utilize its intended functionality: ***Custom Avenue Extension*** *for ArcView.*
- POGIS data was organized in a standardized ***Branch Directory Structure***.

Data Management

- Data inventory and evaluation.
- Additional desired data was listed.
- All the data and desired data was then divided into six directories.

Directory Structure

Data Management

Directory List

- Building & Grounds
- Resource
- Real Estate
- Parks/Recreation
- "Standard" Base Map
- "Corps-Specific" Base Map

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Data Pre-Processing

Data Management

- Create universal naming convention for themes.
- Organization of data in to themes.
- Determine geographic origin of the data.
- Project, Transform, or Register data.

Naming Convention

Data Management

"Standard"Base Map

- Orthophotography
- Quad Basemaps
- Topography
- Major Roads
- Lakes &Streams
- Township & Sections
- County Boundaries
- Administrative Boundaries

Functionality

USACE Tools

- Choose Project Office
- Choose Layer
- Make View
- Make Layout
- Spatial Analysis

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Choose Project Office

Functionality - USACE Tools

pogis

.ini file

preset list

sets internal variable

$LAKEHOME

accesses lake data

```
Iowa:  Rathbun=i:\govutil\9165000\data\iowa\rathbun\
Kansas:  Clinton=i:\govutil\9165000\data\kansas\clinton\
Kansas:  Hillsdale=i:\govutil\9165000\data\kansas\hillsdale\
Kansas:  Kanopolis=i:\govutil\9165000\data\kansas\kanopolis\
Kansas:  Wilson=i:\govutil\9165000\data\kansas\wilson\
Missouri:  Blue Springs=i:\govutil\9165000\data\missouri\bluesprings\
Missouri:  Long Branch=i:\govutil\9165000\data\missouri\longbranch\
Missouri:  Longview=i:\govutil\9165000\data\missouri\longview\
Nebraska:  Harlan Co.=i:\govutil\9165000\data\nebraska\harlanco\
Nebraska:  Holdredge=i:\govutil\9¯65000\data\holdredge\
```


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Choose Layers

Functionality

USACE Tools

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Making a View

Functionality

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Layouts- hardcopy maps

Functionality - USACE Tools

Spatial Analysis Tools

Functionality - USACE Tools

Acreage Tool

- Used primarily for calculating grass mowing areas.
- converts the UTM meter to acres.

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Working with Images

Image Catalogs

ArcView

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Image Catalogs

ArcView

What is an image catalog?

- An organized collection of spatially referenced geographic images.

What are the Advantages?

- The user does not need to know which individual image file is needed to be displayed for a particular part of a project area.
- Image catalogs are loaded as only a single theme.
- *ArcView* will only load the images required by the current *View* into memory.

Image Catalogs

ArcView

Basic Requirements

- There should be at least a two-pixel overlap between neighboring images.
- Only images supported by ArcView can be placed in an image catalog.
- Each image must be individually registered.
- All the images in the catalog should be the same type of format.

Image Catalogs

ArcView

Important Definition

- The ***spatial extent*** of an image is the x,y coordinate of the top left corner of the top left pixel in the image, and the x,y coordinate of the bottom right corner of the bottom right pixel of the image.

Image Catalogs- *Creating your own ArcView*

- Find out the spatial extent of each images.
- Create a new table in ArcView.
- Save the table as a dBASE file.
- Add the image catalog to your view.

Left Bottom Right Top

pommedtsat.dbf

Image	Xmin	Ymin	Xmax	Ymax
$LAKEHOME\stdbase\24k_doqq\wheat.tif	455091.97397200	4191251.41443300	468091.97397200	4207436.41443300
$LAKEHOME\stdbase\24k_doqq\urban.tif	477101.97397200	4177186.41443300	490101.97397200	4193366.41443300
$LAKEHOME\stdbase\24k_doqq\sent.tif	466321.97397200	4177071.41443300	479321.97397200	4193256.41443300
$LAKEHOME\stdbase\24k_doqq\herm.tif	465766.97397200	4191361.41443300	478766.97397200	4207546.41443300
$LAKEHOME\stdbase\24k_doqq\elkton.tif	454981.97397200	4177186.41443300	467981.97397200	4193366.41443300

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POGIS
Online Help

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POGIS Online Help

- Created with *ROBOHELP*
- Provides online help for all phase of *POGIS*.
  - Installing POGIS
  - Setting Environment Variables
  - Basic Functionality
  - Using the USACE Tools
  - Contacts for additional help

POGIS-*Project Office GIS*

Summary

- POGIS is easy to use.
- Operates with a standard defined data set.
- POGIS is powerful and flexible.
- Enables spatial analysis.
- Is an excellent learning tool.

Thank You!

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ASSOCIATES, INC.

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Reminder!

MJH Executive Sponsor Session: Friday Nov. 5th, 11:15 a.m. to 12:00 p.m.