

Legacy GIS Data Management

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US Army Corps of Engineers
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Outline

- What was the problem?
- How did we fix the problem?
- What is the outcome?



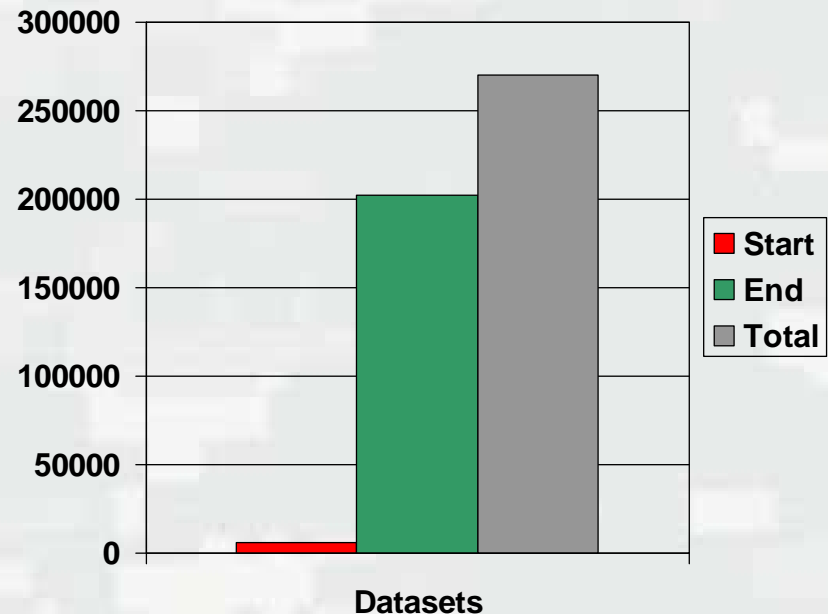
What was the problem?

- Large amounts of incomplete GIS data
 - ▶ 270,000+ current and historic datasets
 - ▶ GIS data was missing basic items:
 - Metadata
 - Projections
 - Pyramids
 - Statistics
 - Spatial index



What was the problem?

- Data characteristics
 - ▶ Raster 75%
 - ▶ Vector 25%
- Data size
 - ▶ 3.1 TB = 4,500+ CDs = 1 stack CDs 4 stories tall
- Metric tracked
 - ▶ FGDC Metadata Compliance
 - Start 2%
 - End 75%



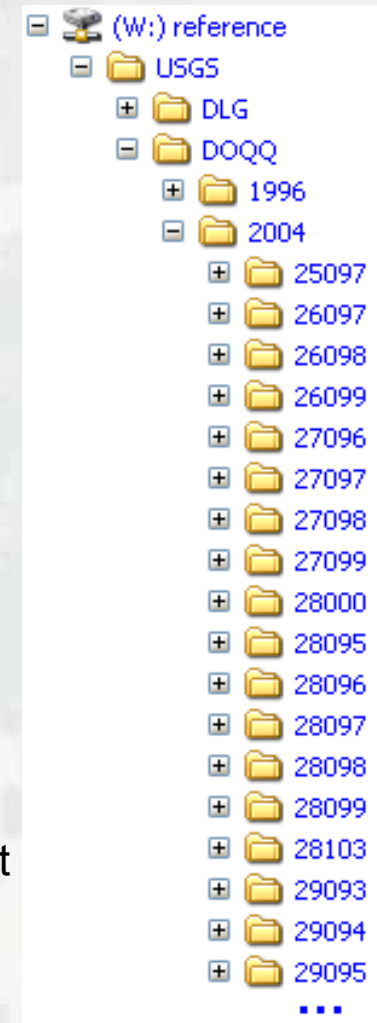
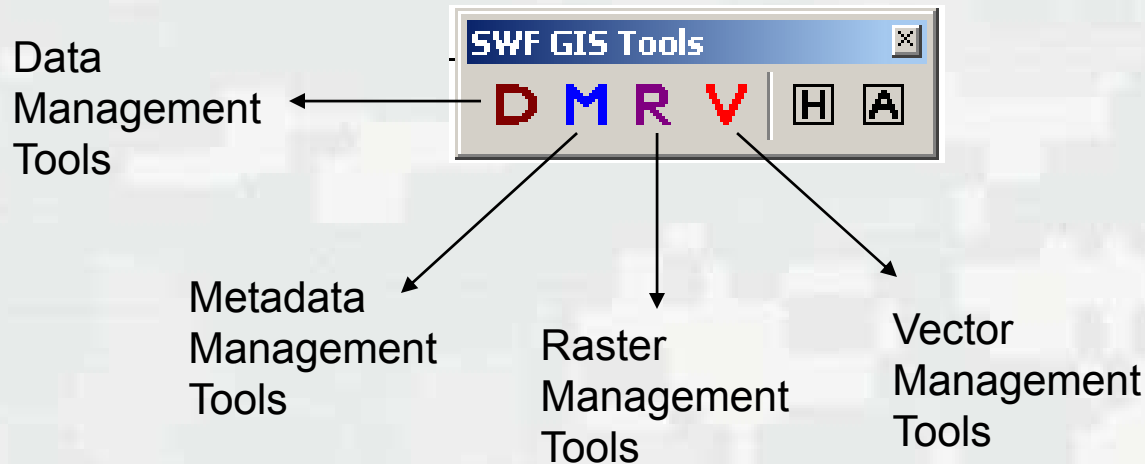
How did we fix the problem?

- Costs
 - ▶ Manual versus development
 - Manual (every time)
 - ▷ \$450k
 - Development (one time)
 - ▷ \$60k
 - ▶ Future benefits
 - Save money now and in future



How did we fix the problem?

- Developed automated tools
 - ▶ Recursive



What is the outcome?

- Better data
 - ▶ Metadata
 - 75% of GIS datasets have metadata
 - ▶ Projections
 - 95% of GIS datasets have projections
 - ▶ Pyramids
 - 99% of rasters have pyramids
 - ▶ Statistics
 - 99% of rasters have statistics
 - ▶ Spatial index
 - 99% of shapefiles have spatial index



What is the outcome?

- Better data
 - ▶ Compliance with federal regulations and standards
 - Federal Geographic Data Committee (FGDC)
 - Department of Defense (DoD)
 - US Army
 - US Army Corps of Engineers (USACE)



What is the outcome?

- Suite of tools in ArcCatalog
 - ▶ Inventory
 - ▶ Projection
 - ▶ Pyramids
 - ▶ Statistics
 - ▶ Image Catalogs
 - ▶ Image Catalogs to Polygons
 - ▶ Metadata
 - Update
 - Import
 - Export to File
 - Export to Table
 - Sync



Available to **EVERYONE!!**



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Demo



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Questions?

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 - robert.r.heselton@usace.army.mil
- ▶ Jennifer Holland, Geographer
 - jennifer.m.holland@usace.army.mil
- ▶ Visit Fort Worth District GIS at:
http://geospatial.swf.usace.army.mil/gis_tools.aspx



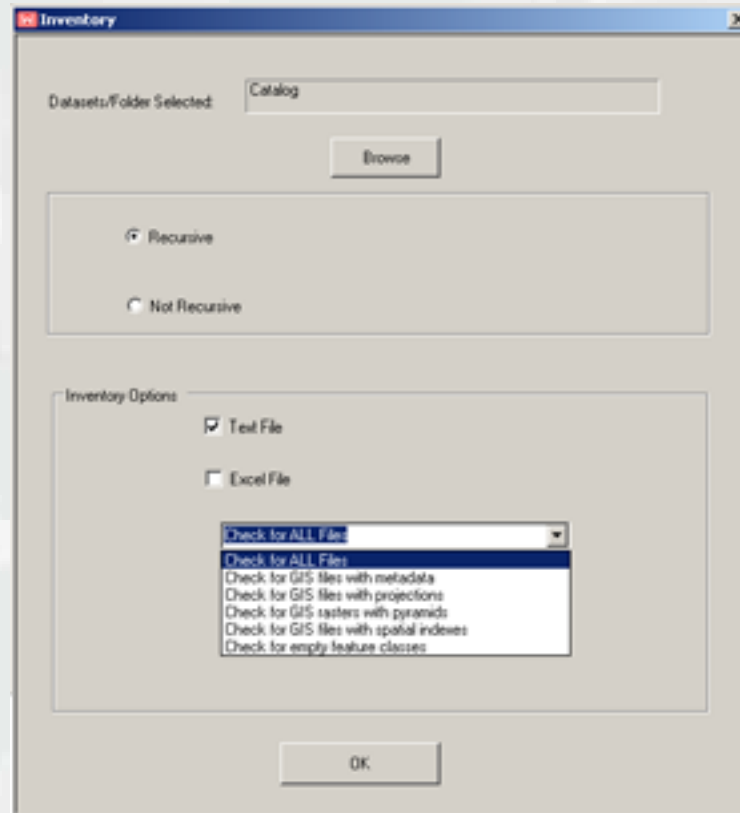
SWF GIS Tools



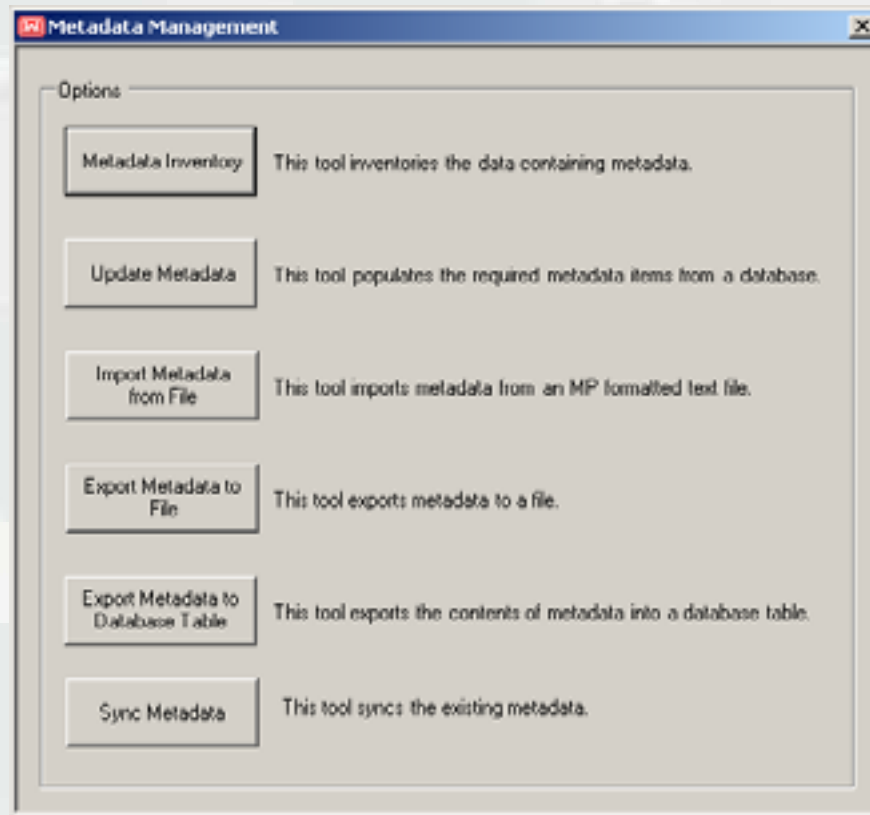
Data Management Tools



Inventory



Metadata Management Tools



Update Metadata

Update Metadata

Default or Folder Selected
Catalog

Select Metadata Record

Recursive
 Not Recursive

B2B Metadata Distribute Information Publish Information

Metadata Values

Name ID	<input type="text"/>	Title	<input type="text"/>
Degree	<input type="text"/>	Type	<input type="text"/>
Author	<input type="text"/>	Type Keyword	<input type="text"/>
Editor	<input type="text"/>	Contact Organization	<input type="text"/>
Catalog Date	<input type="text"/>	Contact Person	<input type="text"/>
Publication Date	<input type="text"/>	Contact Address	<input type="text"/>
Copyright Reference	<input type="text"/>	Contact Title	<input type="text"/>
Progress	<input type="text"/>	Date	<input type="text"/>
Access	<input type="text"/>	Do Code	<input type="text"/>
Use Conditions	<input type="text"/>	Contact Telephone	<input type="text"/>
		Contact Email	<input type="text"/>

Maintenance and Update Frequency



Import Metadata from File



Export Metadata to File

Export Metadata To File

Dataset/Folder selected: Catalog

Browse

Recursive
 Not Recursive

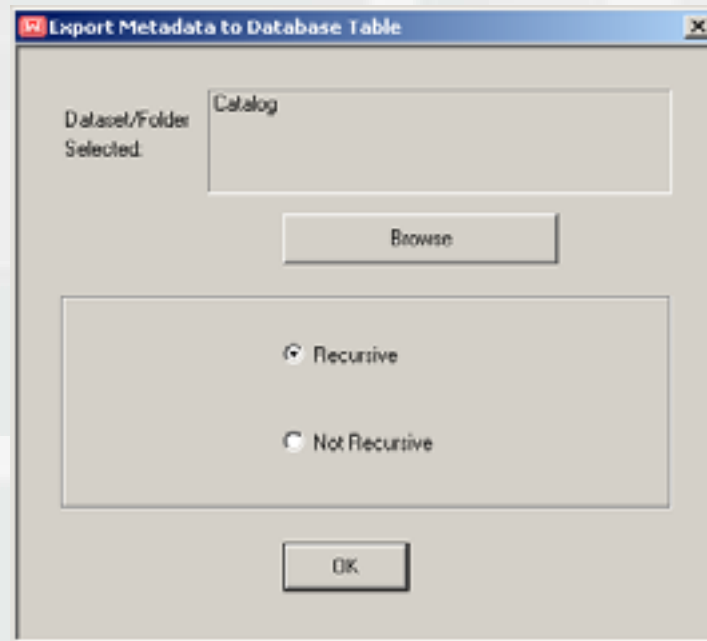
Export Options

Text File
 HTML File
 XML File

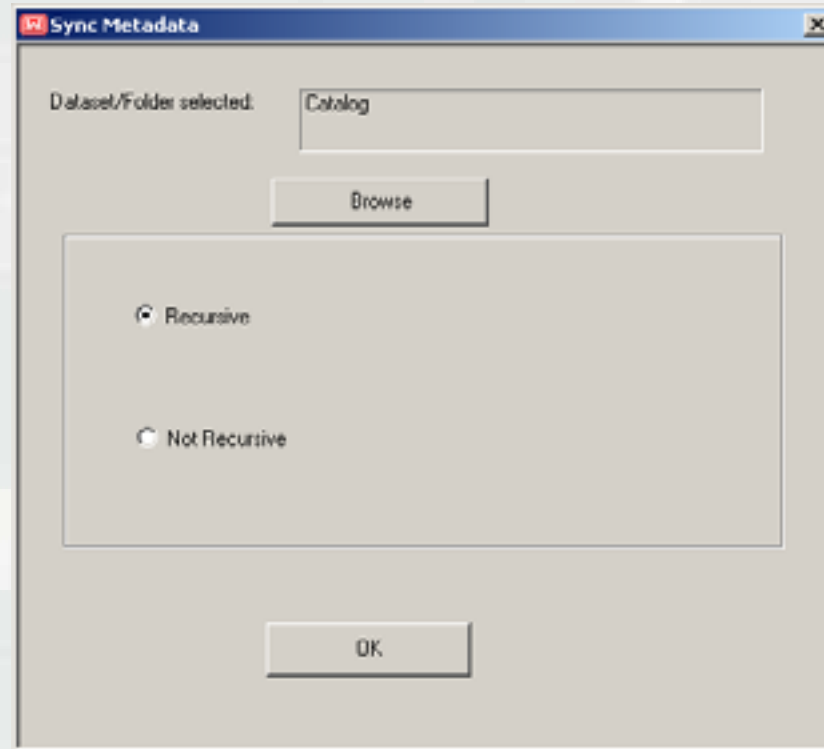
OK



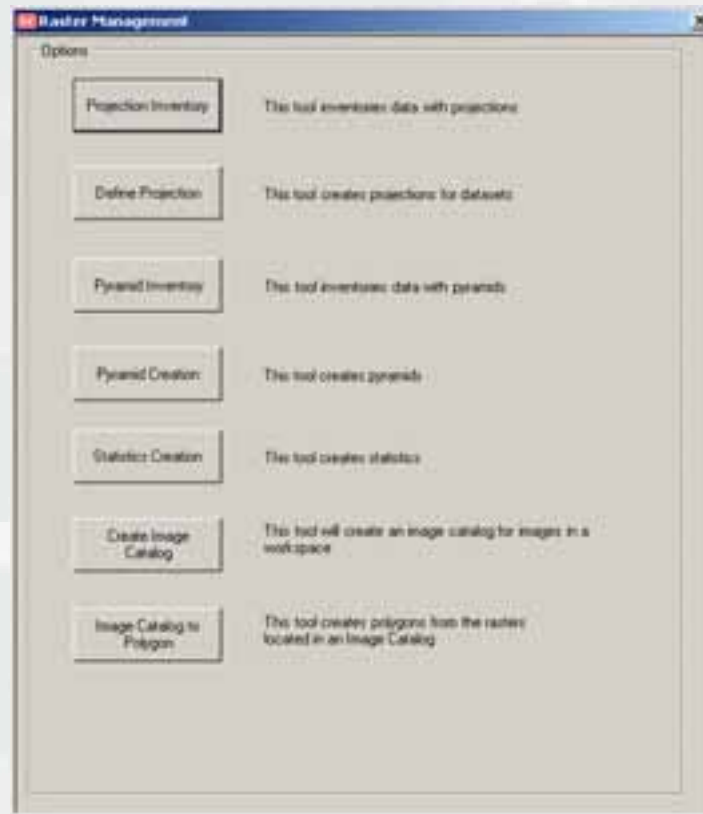
Export Metadata to Table



Sync Metadata



Raster Management Tools



Define Projection



The screenshot shows a dialog box titled "ProjectBase" with a standard Windows-style title bar. The dialog is divided into several sections:

- Dataset/Folder selected:** A text input field containing the word "Catalog". To its right is a "Browse" button.
- Resume options:** Two radio buttons are stacked vertically. The top one is labeled "Resume" and is selected. The bottom one is labeled "Not Resume".
- Projection options:** A "Browse for Projection" button is located above a text input field. Below the input field is a checkbox labeled "Overwrite Current Projection", which is currently unchecked.
- Buttons:** An "OK" button is positioned at the bottom center of the dialog.



Pyramid / Statistics Creation

The image shows a dialog box titled "Pyramids And Statistics". It contains several sections for configuring the output:

- Data/Folder selected:** A text field containing "C:\my" and a "Browse" button.
- Options:** A section with two radio buttons: "Pyramid" and "Statistics".
- Number of Columns to display:** A text input field.
- Number of Rows to display:** A text input field.
- Value to print:** A text input field.

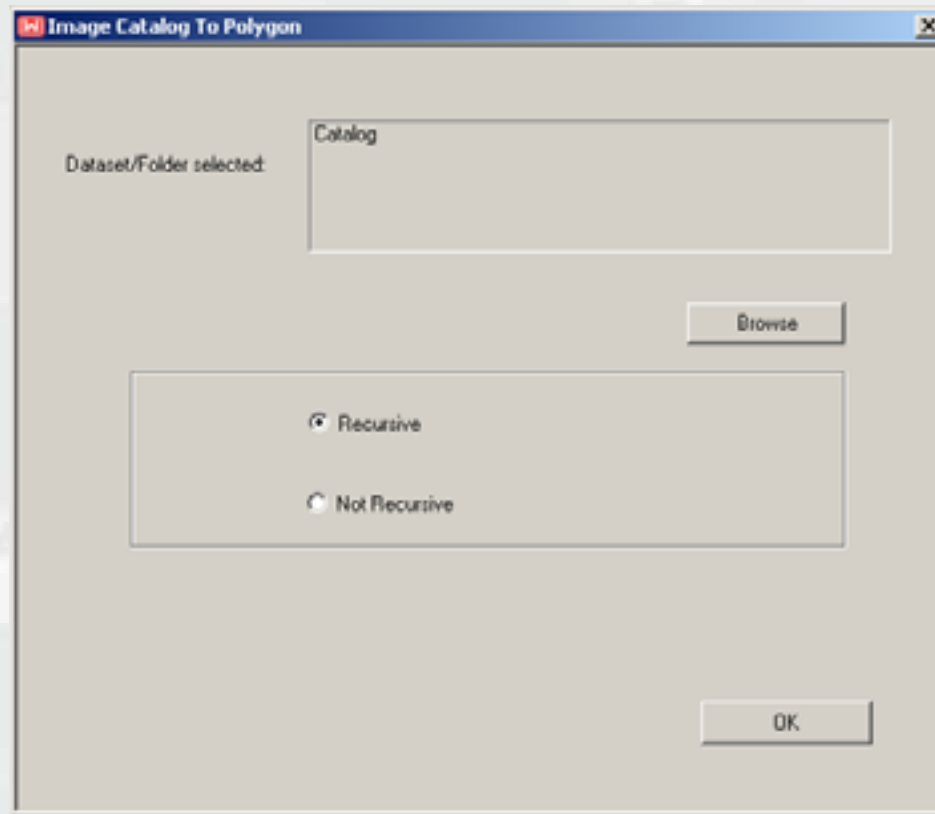
Buttons for "OK" and "Cancel" are located at the bottom of the dialog.



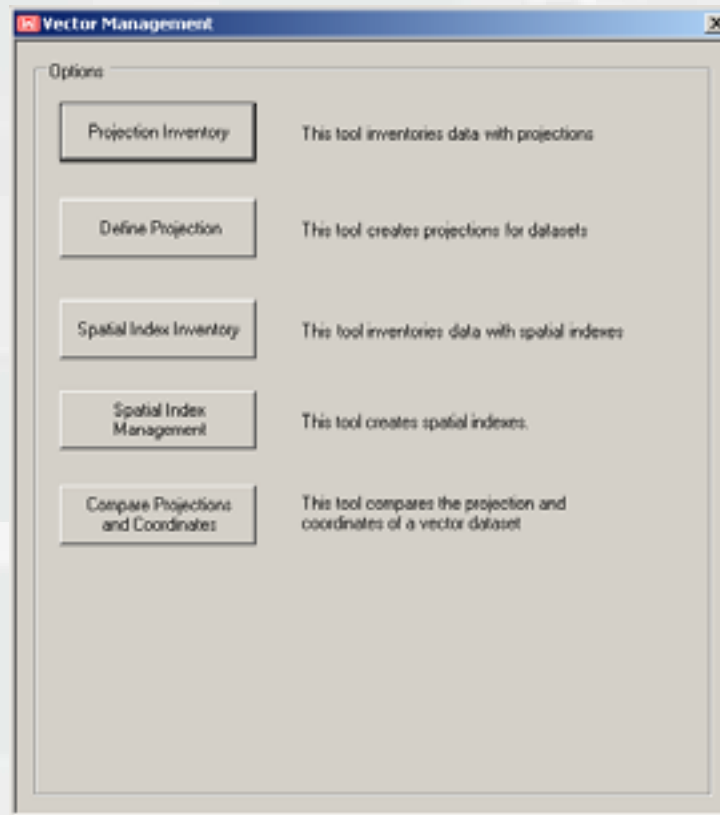
Create Image Catalog



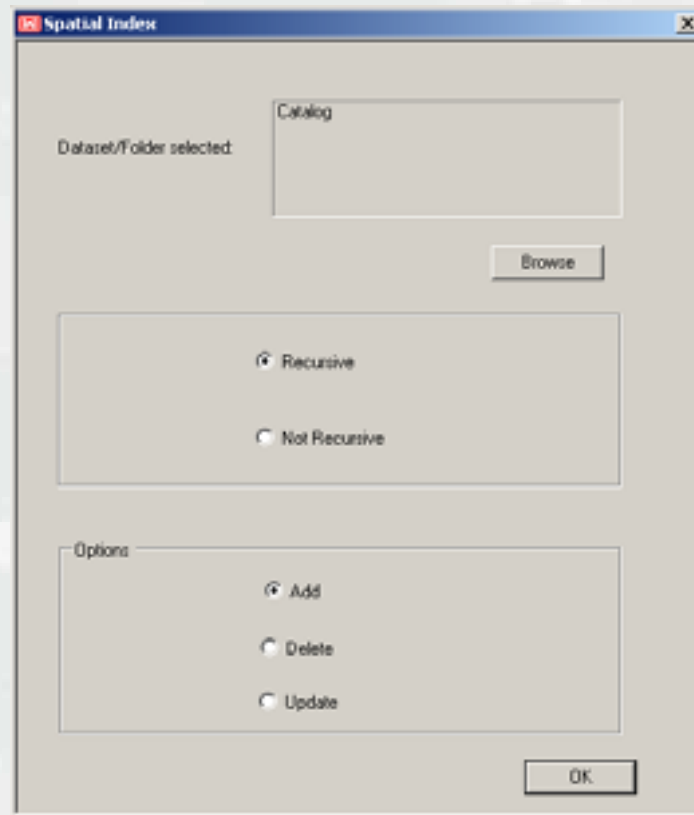
Image Catalog to Polygon



Vector Data Management



Spatial Index Management



Compare Projection and Coordinates

Compare Projection And Coordinate

Dataset/Folder selected: Catalog

Browse

Recursive
 Not Recursive

Options:

Text File
 Excel File

OK



About Box

