



Introduction to PLTS for ArcGIS

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Seminar overview

- **PLTS at a glance**
- **PLTS Foundation Tools**
 - Data Editing and Maintenance
- **The GIS Data Reviewer**
 - Quality control
 - Visual and Automated Checks
- **Map Production System-Atlas**
 - Map Series creation
 - Map surround
- **Job Tracking for ArcGIS (JTX) and Task Assistant Manager**
 - Workflow management

General production workflow

Capture

Store

Edit

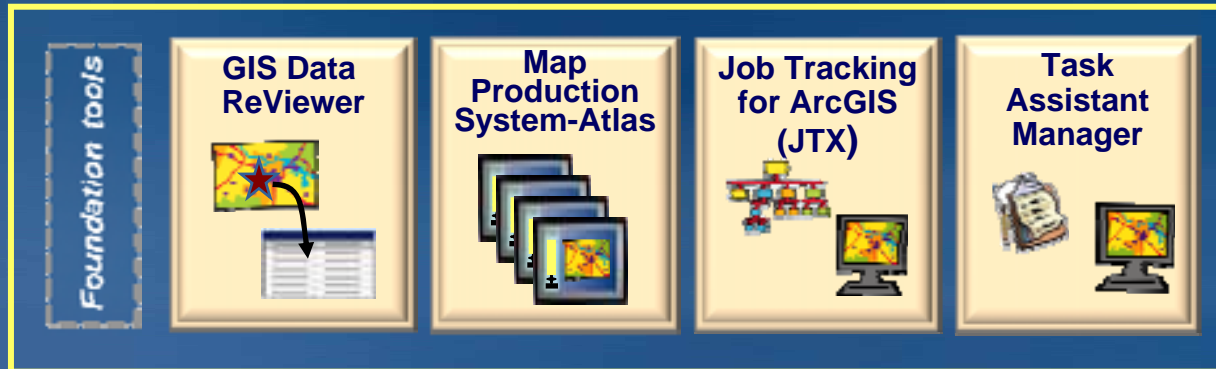
Review

Output



Production Line Tool Sets

PLTS Foundation



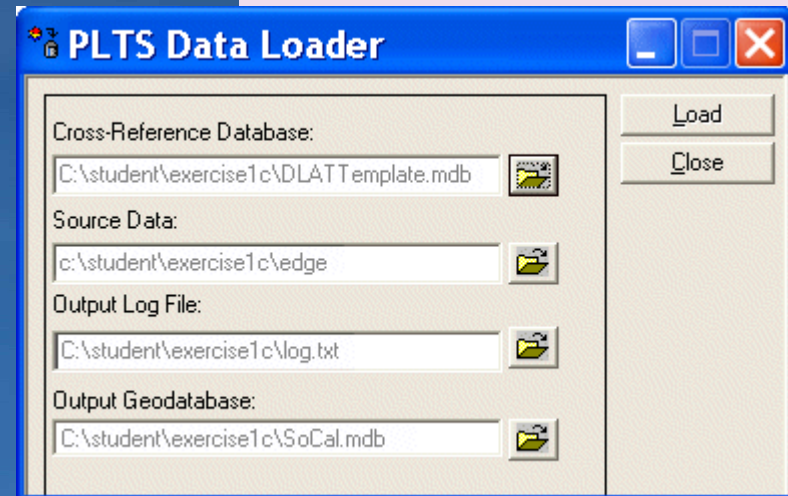
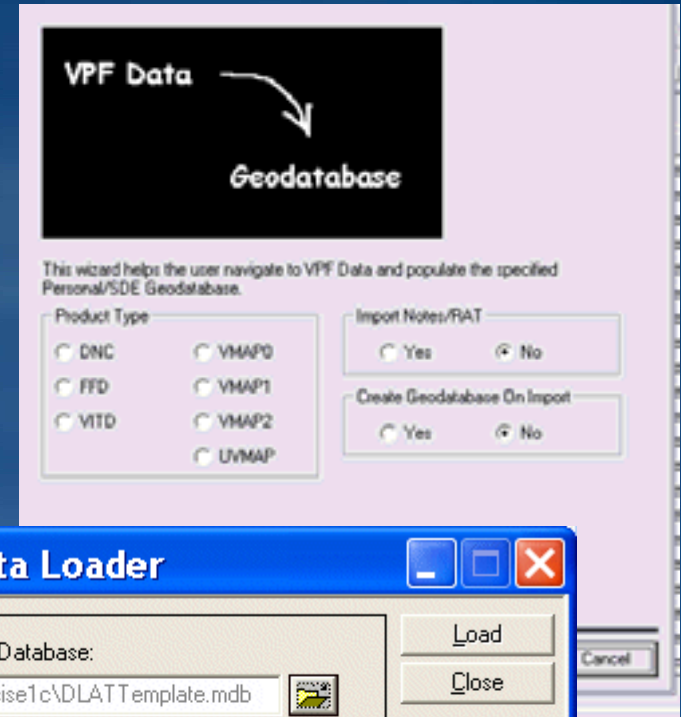
PLTS Solutions



Foundation Tools

Data Loading

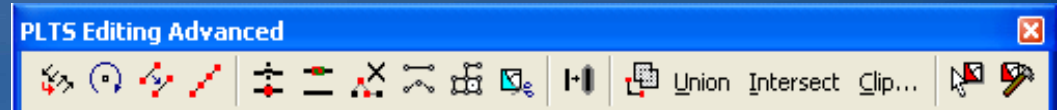
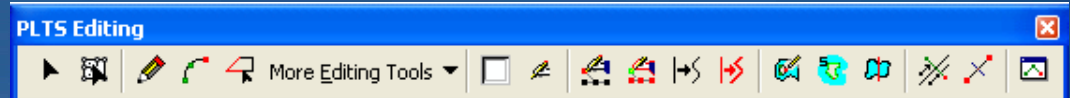
- **Vector Product Format (VPF) Importer**
 - Import direct to geodatabase
- **PLTS Data Loader**
 - Batch loading
 - Multiple sources to multiple targets
 - Cross-Reference database
 - Supported source data formats
 - Coverage
 - Shapefile
 - Geodatabase
 - Compliments core loading options
 - Simple Data Loader
 - Interoperability Data Loader



Foundation Tools

Editing in PLTS

- Conceptually same as in core ArcGIS
- Enhancements made to accessibility of tools
 - More toolbars
 - One click activation
- Additional editing tasks
- Additional editing tools
- Pre-attribute features
- Table of contents
 - Manage target layer



Foundation Tools

Using the Target Tab

- Target layer & Attributes
- Attribute features
 - Pre-attribute new features
 - Using defaults
 - Modify & apply
 - Using favorites
 - Customized default values
 - Copy from exiting features
 - On-the-fly validation

Target:

- Trans
 - RoadL
 - RoadLine
- Builds
 - BuildP
 - BuildingPoint
- AerofacA
 - AirportAirfieldArea

Fields	Values
OBJECTID	
FCsubtype	0 - BuildingPoint
gfid	
f_code	AL015 - AL015
aoo	999
bfc	0 - Unknown
exs	28 - Operational
hgt	0
hwt	22 - Not Applicable
lmc	0 - Unknown
nam	UNK
pro	132 - Not Applicable
zv2	29999

< [Progress Bar] >

Apply

PLTS Selection PLTS Target

Display Source Selection

Foundation Tools

On the fly validation

- Preliminary check of attribute values
 - Attributes checked before feature is created
- Two methods of validation
 - Product Library
 - Validation procedures
 - Attribute management
 - PLTS Knowledge base
 - Suite of tables
 - Controls valid attributes and feature symbology, and more
- Accessed from the PLTS Target and PLTS Selection tab



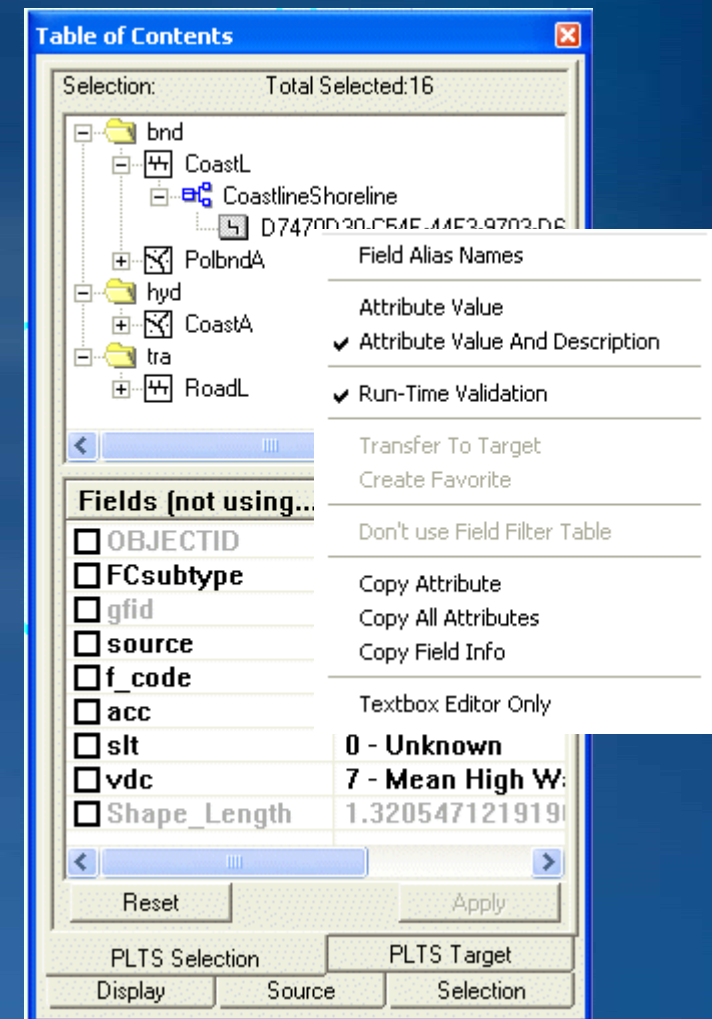
Foundation Tools

Selecting features

- Same selection options as core
- PLTS Selection Tab
 - Lists selected features & attributes
 - Browse selected features
 - In an edit session:
 - Update attributes of features
 - Transfer attribute values



Selection tools

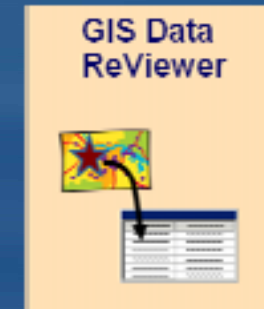


Demo: Foundation tools

- Editing in PLTS
 - New feature creation
 - Target tab and Selection tab
 - Transfer attributes
 - Use create a hole task

GIS Data ReViewer

- **System to process and assess spatial data quality**
 - Tools for performing data QC
 - Automated checks
 - Visual review
 - Error documentation
 - Error location
 - Error information
 - Status – Review, Correct, Verify
- **Also sold as a stand alone extension**



RECORDID	REVIEWSTATUS	NOTES	ORIGINCHECK	REVIEWERCATEGORY
7	Delete Feature	Construction Change 2005	Commit to ReViewer Table Tool	1
8	Delete Feature		Commit to ReViewer Table Tool	1
9	Delete Feature		Commit to ReViewer Table Tool	1

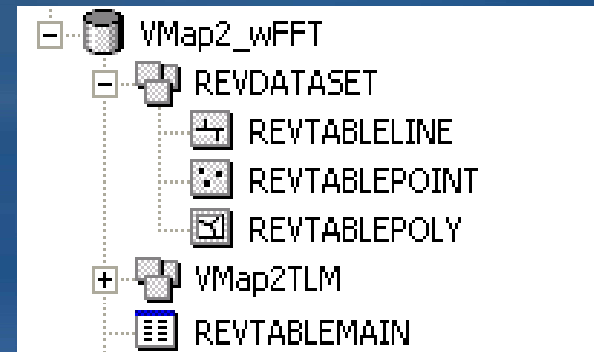
RECORDID	CORRECTIONTECHNICIA	CORRECTIONDATE	CORRECTIONSTATUS
7			
8	Martha	Wednesday, February 07, 2007 10:45:06	Resolved - Per Guidance

RECORDID	VERIFICATIONTECHNICIAN	VERIFICATIONDATE	VERIFICATIONSTATUS
7			
8			
9	Sam	Wednesday, February 07, 2007 10:45:16	Acceptable

GIS Data ReViewer

ReViewer storage options

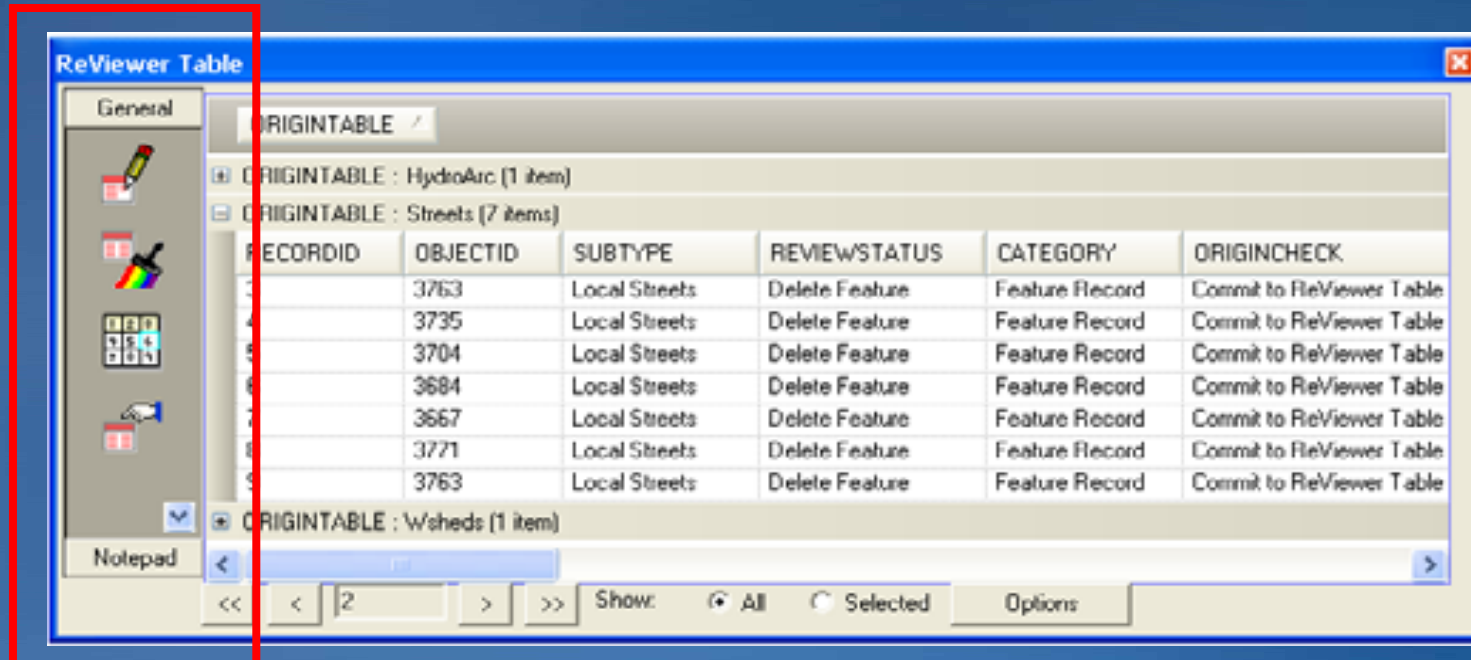
- Inside or outside of production database
 - Personal Geodatabase
 - File Geodatabase
 - Enterprise (SDE) Geodatabase
- Stores
 - ReViewer dataset
 - ReViewer table
 - ReViewer polygon grids



GIS Data ReViewer

The ReViewer Table

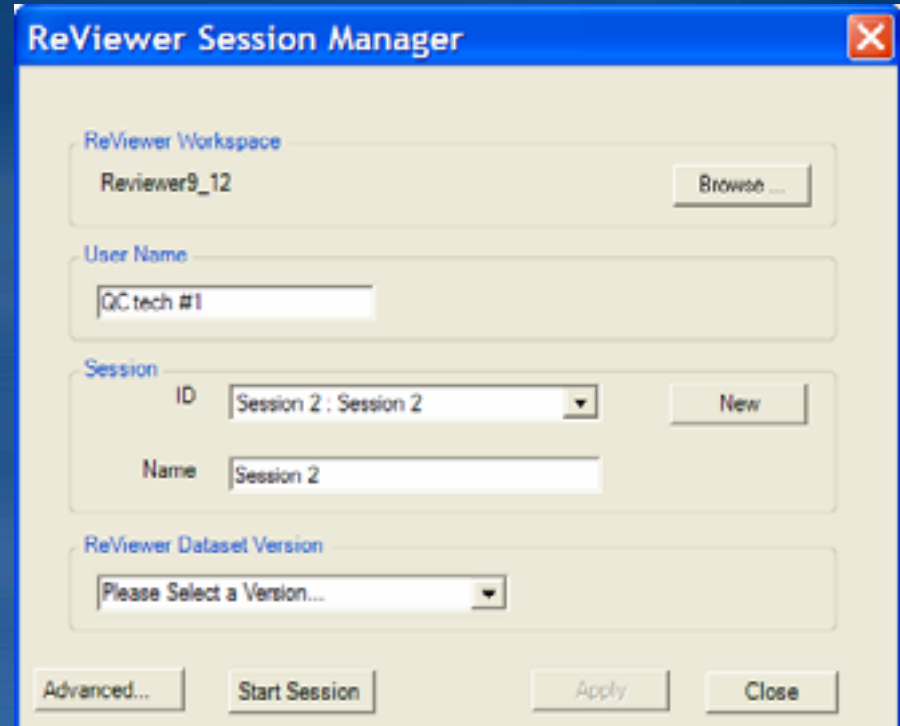
- Heart of the review process
- Tracks all anomalies and errors
- Records correction and verification status
- Contains tools to help manage the records



GIS Data ReViewer

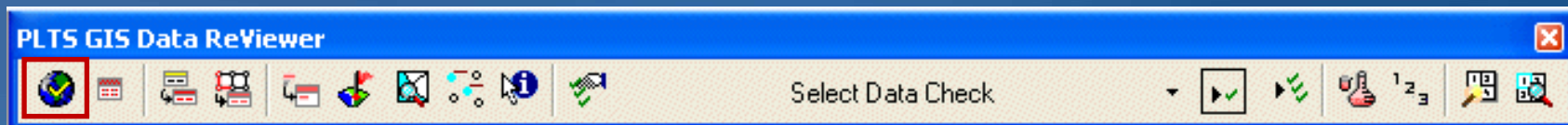
ReViewer Sessions

- Opens the environment for review
- Can have multiple sessions
 - Associated with
 - Project
 - User
 - Version



The ReViewer Session Manager dialog box is shown with the following fields and buttons:

- ReViewer Workspace:** A text field containing "Reviewer9_12" and a "Browse ..." button.
- User Name:** A text field containing "QCtech #1".
- Session:** A section containing a dropdown menu for "ID" (currently showing "Session 2 : Session 2"), a "New" button, and a text field for "Name" (containing "Session 2").
- ReViewer Dataset Version:** A dropdown menu showing "Please Select a Version...".
- Buttons at the bottom:** "Advanced...", "Start Session", "Apply", and "Close".



GIS Data ReViewer

Automated data checks

- 38 different data checks
 - Some geometry checks
 - Some attribute checks
 - Solutions may contain additional checks
- Run one at a time or in batch

Cutbacks

Identifies segments where the angle between segments in a polygon or polyline is below a specified minimum value

Angle < 25°



Geometry on Geometry

Searches for features from two different feature classes or within the same feature class that spatially interact (eg. intersect) or are within a tolerance of each other

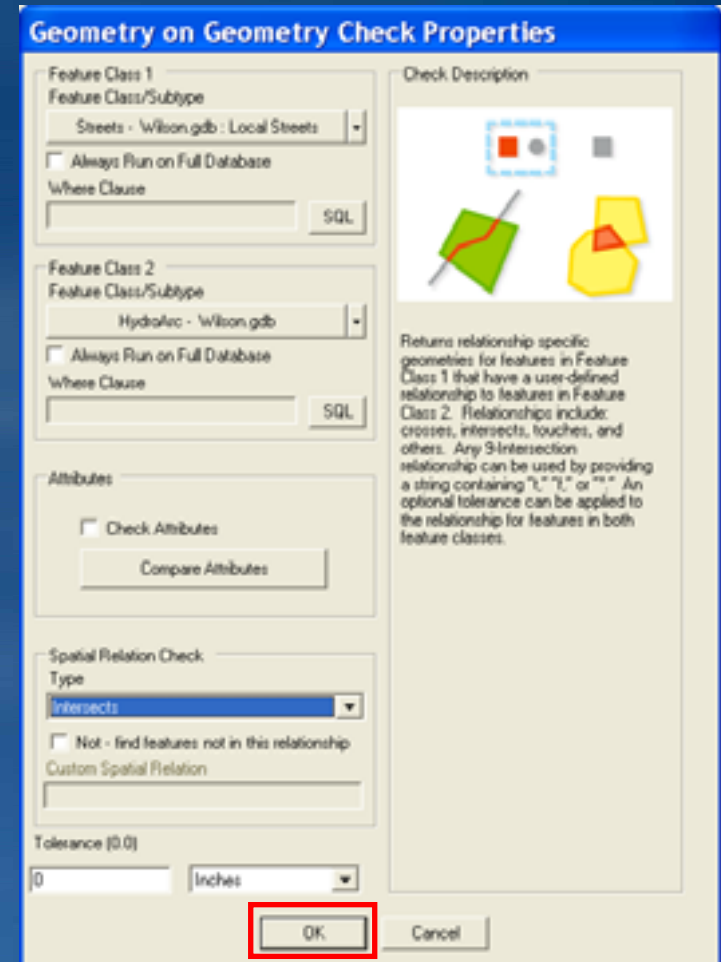
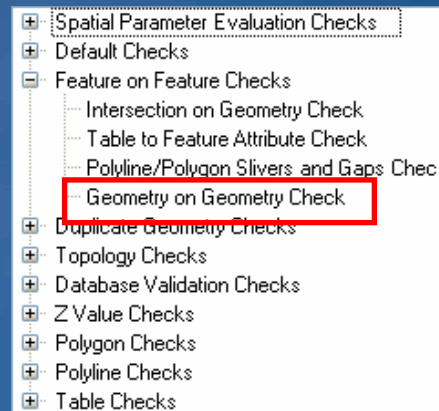
Comparison to Topology:
Line—must not overlap, intersect, overlap with
Polygon—must not overlap, contain point, overlap with



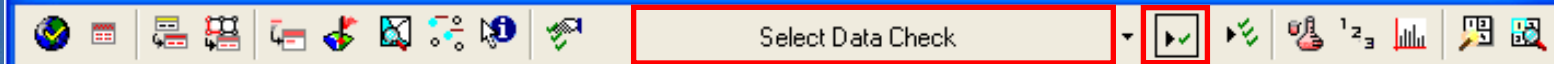
GIS Data ReViewer

Running Data Checks

- Select and configure check
- Run the check
- Checks can be run outside of a ReViewer session
 - Can be used in edit session



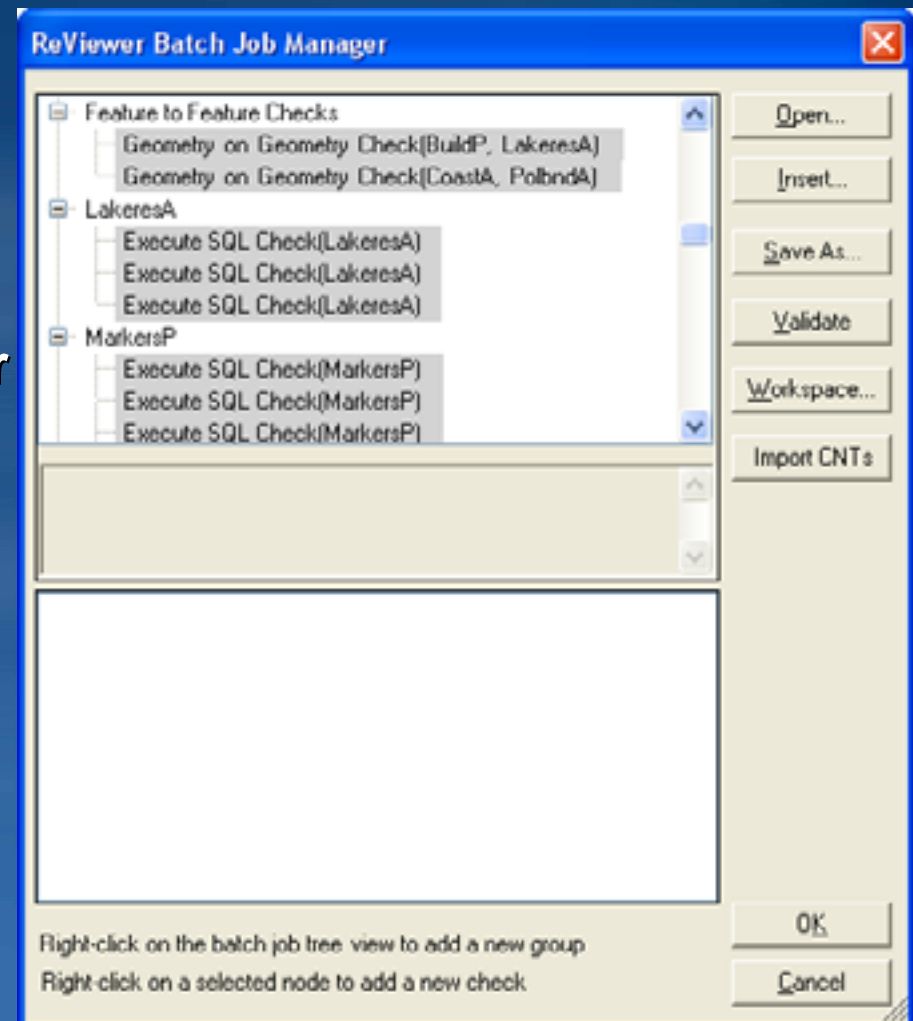
PLTS GIS Data ReViewer



GIS Data ReViewer

Cumulative Review

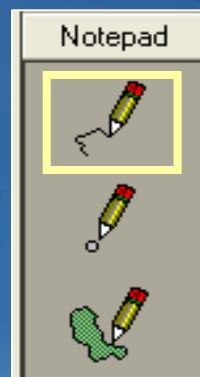
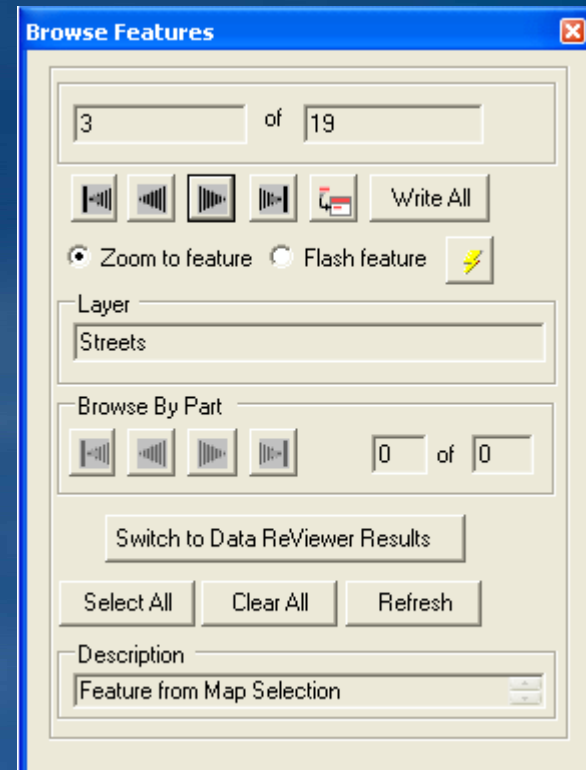
- Batch Jobs
 - Execute multiple checks
 - Consistent validation
 - Share with others
- Design using Batch Job Manager
- ReViewer Service
 - Windows service
- ReViewer Executable



GIS Data ReViewer

Visual Review Tools

- Manual data review
- From a selection set
 - Browse through features using dialog box
 - Commit features to ReViewer Table
- Single features
 - Select feature
 - Commit to ReViewer Table button
- Missing Features
 - Flag Missing Feature
 - Notepad Sketch Tools



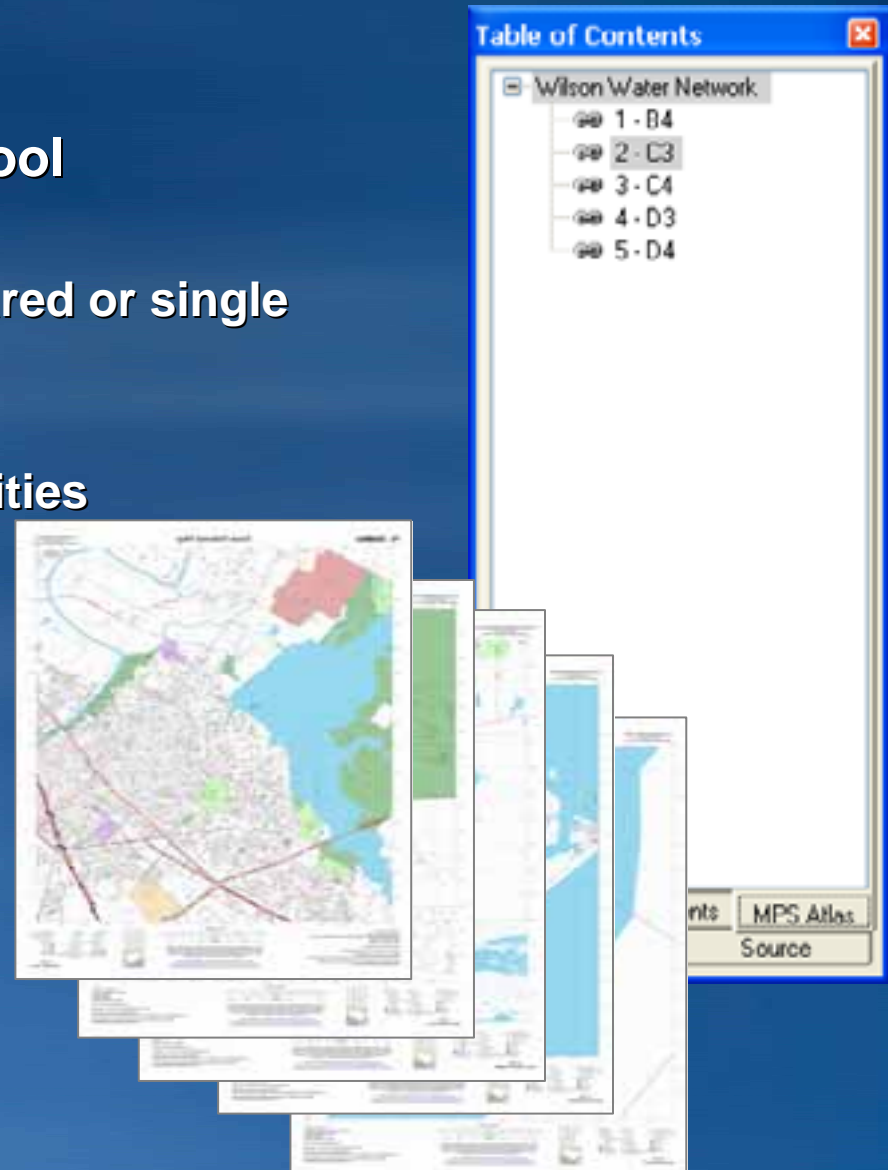
Demo: Data Review

- Reviewing data
 - Start a reviewer session
 - Run a data check
 - Use visual review tools

MPS-Atlas

Introducing MPS-Atlas

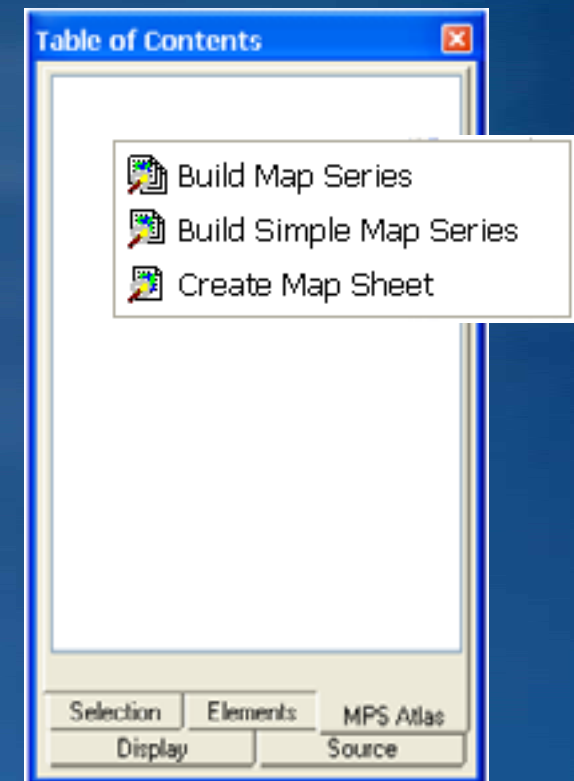
- **Batch cartographic production tool**
 - Multiple map sheets in one MXD
 - Map sheets in a series can be shared or single
 - Shared – layouts are shared
 - Single – layouts are individual
 - Batch printing and export capabilities
 - Map sheets can be saved as individual map documents
- **Quick & easy to use map series generation tool**



MPS-Atlas

Creating a Map series

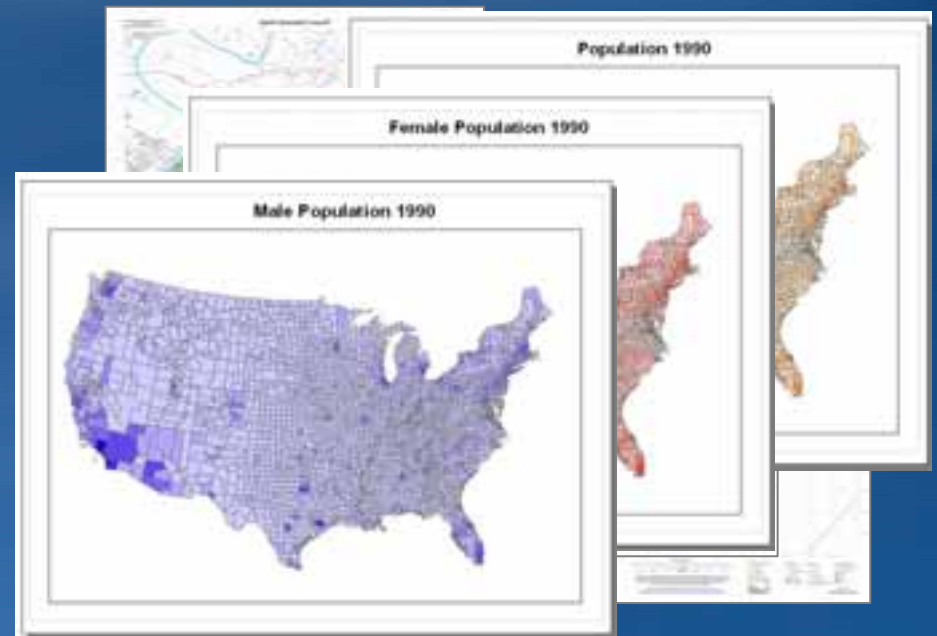
- **Build Map Series**
 - Comprehensive wizard
 - No assumptions of the data frame properties
- **Build Simple Map Series**
 - Simplified wizard
 - Assumes certain properties of the data frame
 - Properties can be adjusted later
- **Create Map Sheet**
 - Creates map sheet using visible extent
 - Specify layout to use



MPS-Atlas

Area of Interest (AOI) options

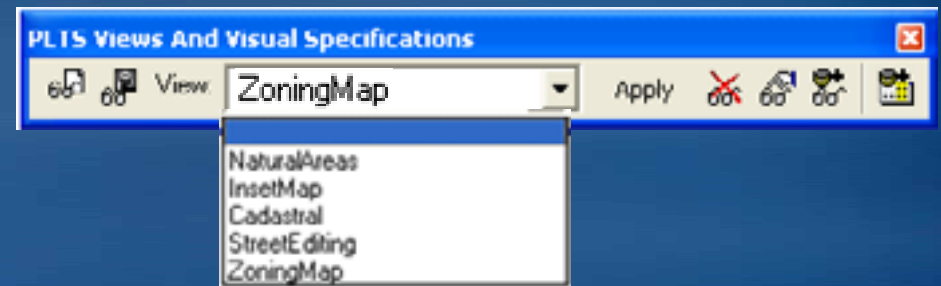
- Area of interest defines which information will be shown in the data frame of each map sheet
- Defined using a feature class
 - Points, lines, or polygons
- Two methods
 - Selecting multiple features
 - Multiple AOIs
 - Same symbology
 - Same layout
 - Selecting a single feature
 - Thematic map



MPS-Atlas

PLTS Views

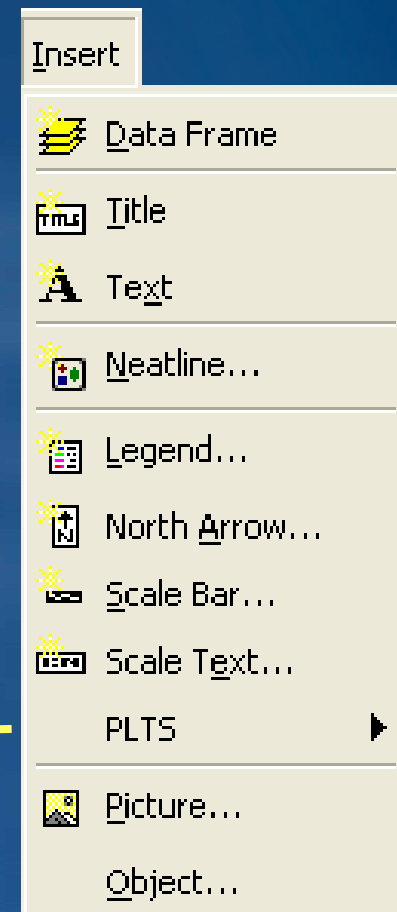
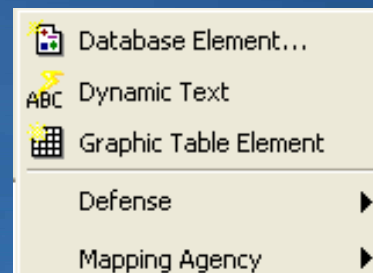
- Map production preparation
- Presets map properties
 - Data layers
 - Layer properties
 - Labels or annotation
 - Data frame properties
- Stored in database
 - Loaded into the map document when needed



MPS-Atlas

Inserting Surround Elements

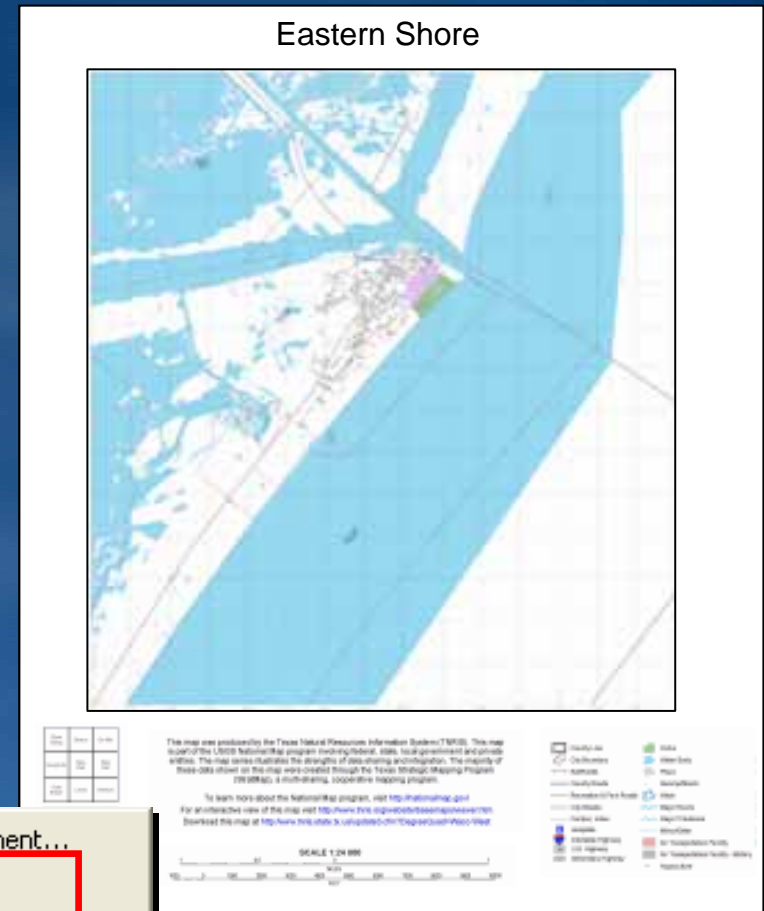
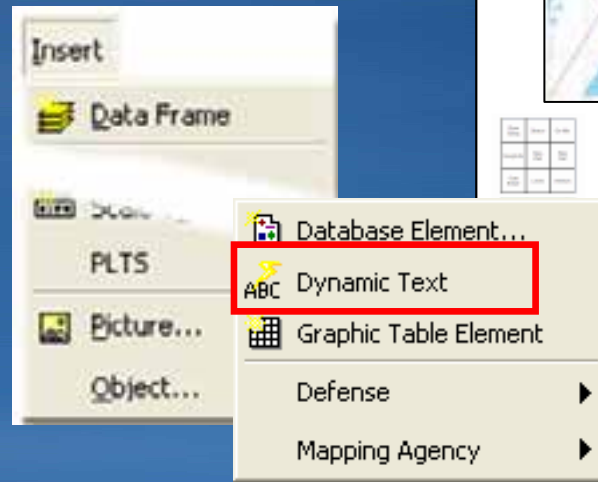
- Can insert ArcGIS surround elements
- PLTS surround elements
- Map sheets
 - Shared – all map sheets inherit the surround element
 - Single – only the current map sheet inherits surround element



MPS-Atlas

Dynamic Text Elements

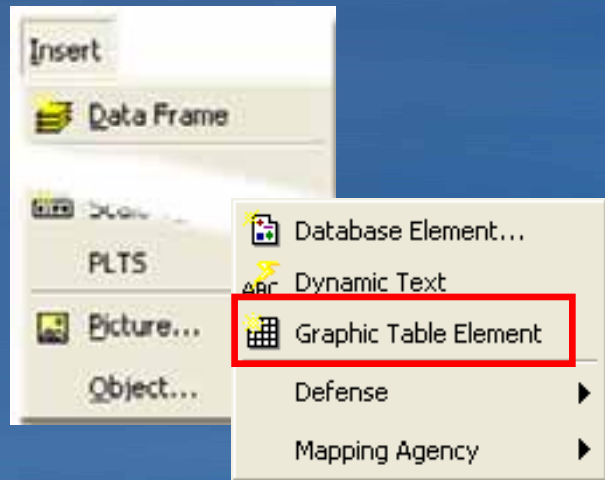
- Dynamically updating text elements
 - Updates on each map sheet
- Types:
 - Computer name
 - Data frame properties
 - Date
 - Feature attributes
 - Map properties
 - Time
 - User name
 - Coordinate text



MPS-Atlas

Graphic Table Element

- Dynamic table in layout
 - Easy insert and format of attribute tables
 - Shows only the attributes from map extent
- Create a dynamic legend
 - Shows only symbology of layers/features in the map extent



Capital	★
Coastline	—
Internal State Boundaries	—
International Boundaries	—
Lake	■
U.S. States	■
International Countries	■

Category	Reference Number	Feature Name
1	4	Industrial plant with warehouses
1	12	Warehouse and storage facility
4	25	Al Kut Military Hospital
5	43	Military facility
5	34	Helipad
8	58	Helipad
9	70	Bus depot
14		Imam Muhammad Abu Al Hasan Mosque

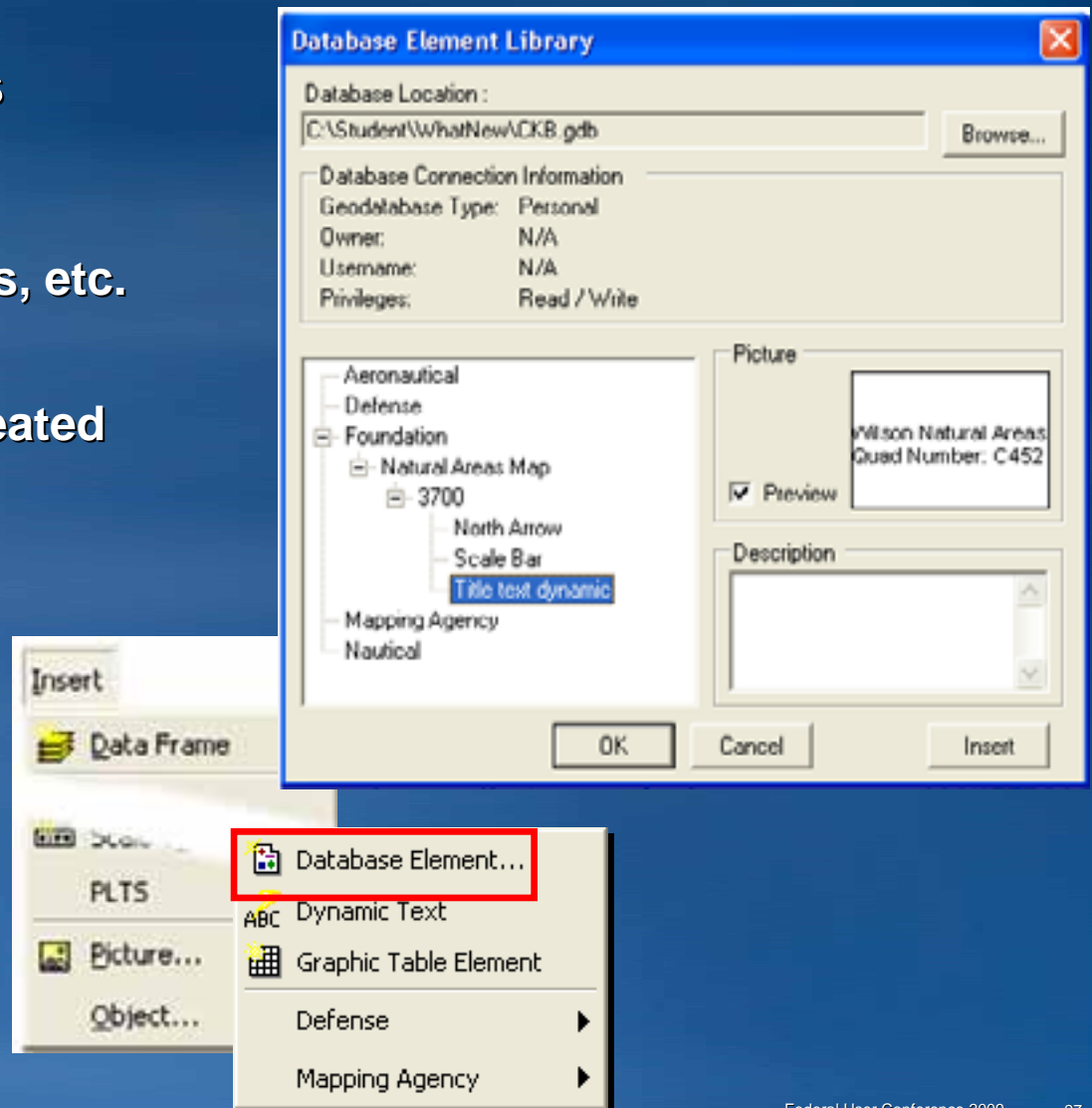
Compiled from 2006 Sample Data

GLOSSARY	
balang.	stream
buntu.	mountain
jalan.	street
krueng.	stream
meuseugit.	village
padang.	mountain
sari.	reef
tanjung.	cape

MPS-Atlas

Database Element Manager

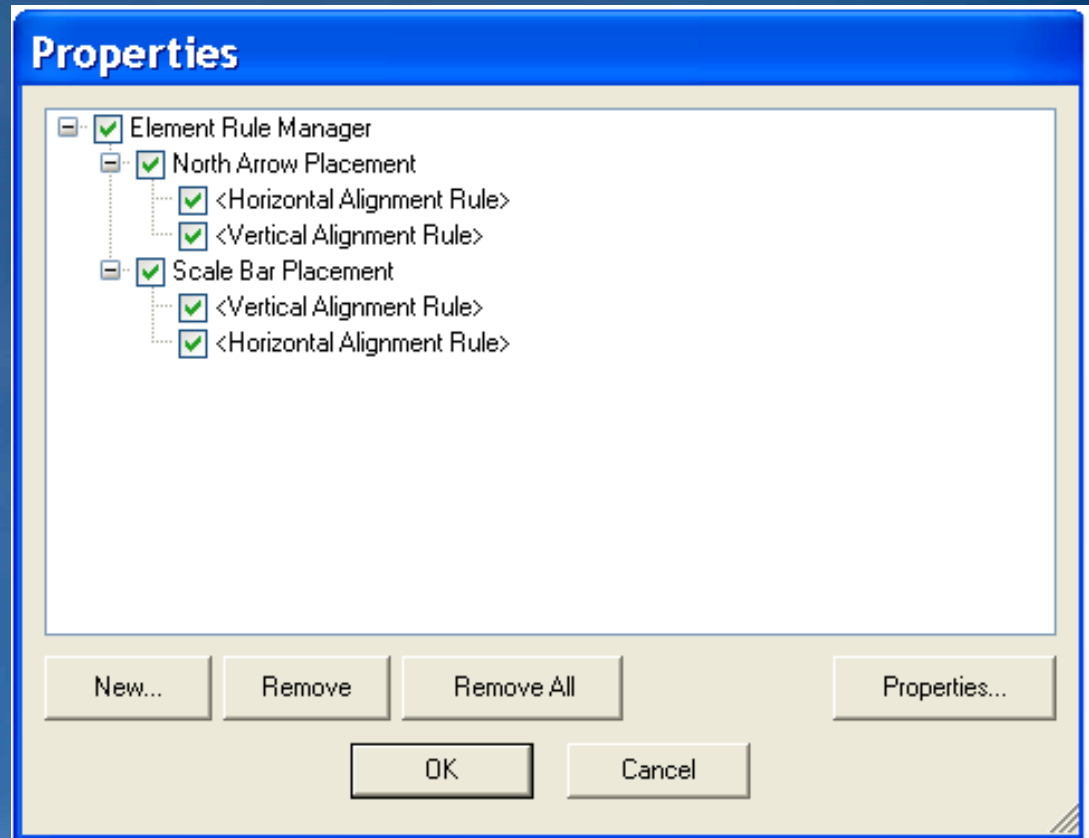
- Store surround elements in database
 - North arrows, legends, scale bars, text, graphics, etc.
- Browse to the database
 - Necessary tables are created
- Store different product specific elements
- Preview and description



MPS-Atlas

Element Placement Rules

- Rules for the relative positioning of elements in the map layout
- Written as a 'sentence'
- Group rules
 - Vertical rule
 - Horizontal rule
- Toggle rules on/off



MPS-Atlas

Grid Manager

- Create grids, graticules, and borders
- Grids created as feature classes
- Visible in data & layout view
- Double precision accuracy
- Additional grid label formats
- Complex AOI shapes
- Multiple UTM zone support



Demo: MPS Atlas

- **Working with Atlas**
 - Explore existing series
 - Add surround elements
 - Add dynamic text
 - Apply an element rule

Job Tracking for ArcGIS

- **Workflow management**
 - Process of monitoring and documenting GIS tasks
- **Define workflow**
 - What needs to be done?
 - What order to complete?
- **Resource management**
 - Who will do the job?
- **Transaction history**
 - When was it started/completed?
 - How much is complete?
 - What was done?
- **Application integration**

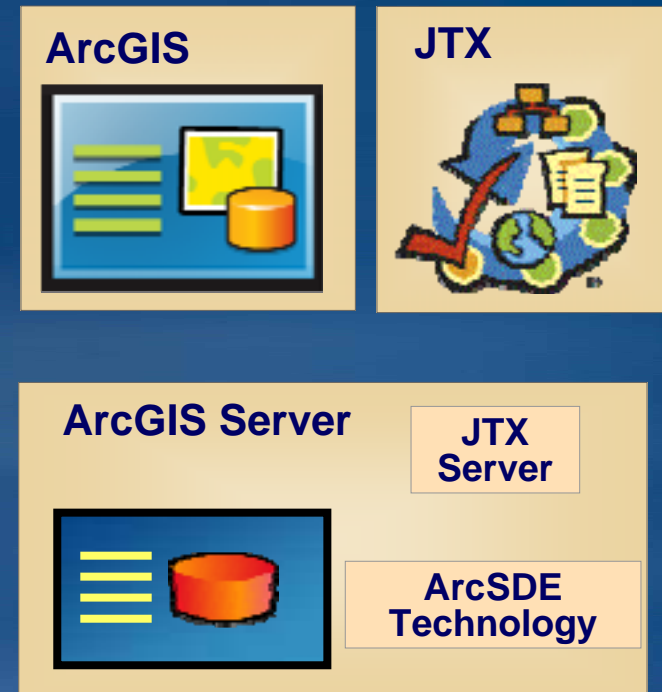
**Job Tracking
for ArcGIS
(JTX)**



Job Tracking for ArcGIS

System Requirements

- **ArcGIS Desktop**
 - ArcEditor license level
 - An SDE geodatabase
 - Personal SDE, Workgroup SDE, or Enterprise SDE
- **Job Tracking for ArcGIS (JTX)**
- **ArcGIS Server**
 - JTX server
 - SDE Workgroup or SDE Enterprise



Job Tracking for ArcGIS

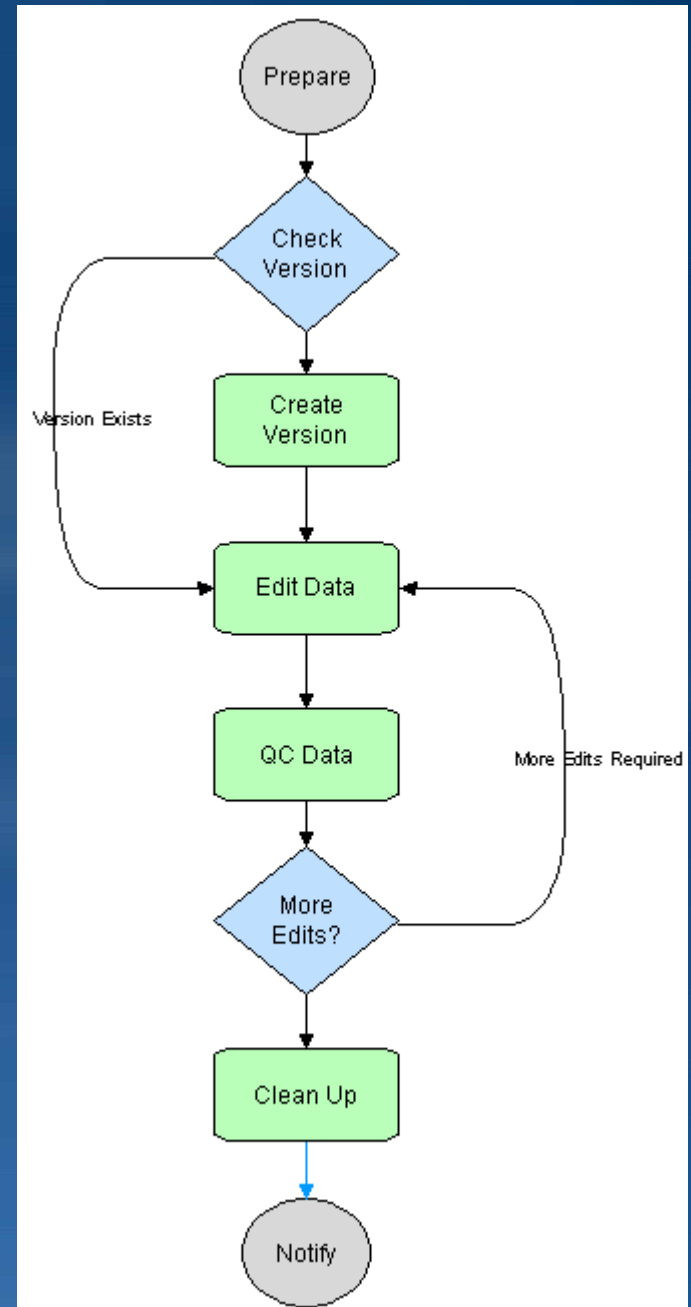
Key terminology

- **Job Type**
 - Type of work being performed
 - Flexible
 - Feature extraction
 - Creation of a specific map product
 - Loading and or processing data
 - Perform specific analysis
- **Job**
 - Can have multiple jobs per Job Type
 - Single unit of work
 - Performed by one or more people

Job Tracking for ArcGIS

JTX Configuration

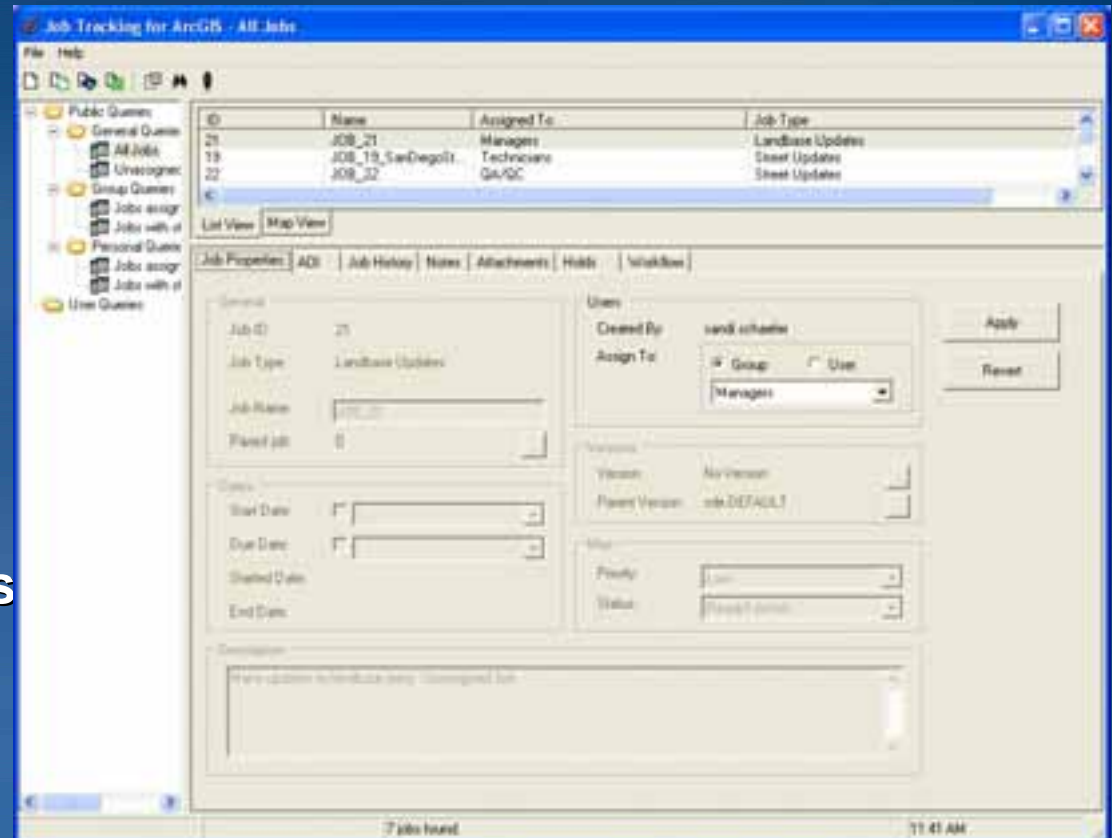
- Create job types
 - Develop workflows
 - Assign users to tasks in workflow
 - Assign mxd
 - Establish a workspace



Job Tracking for ArcGIS

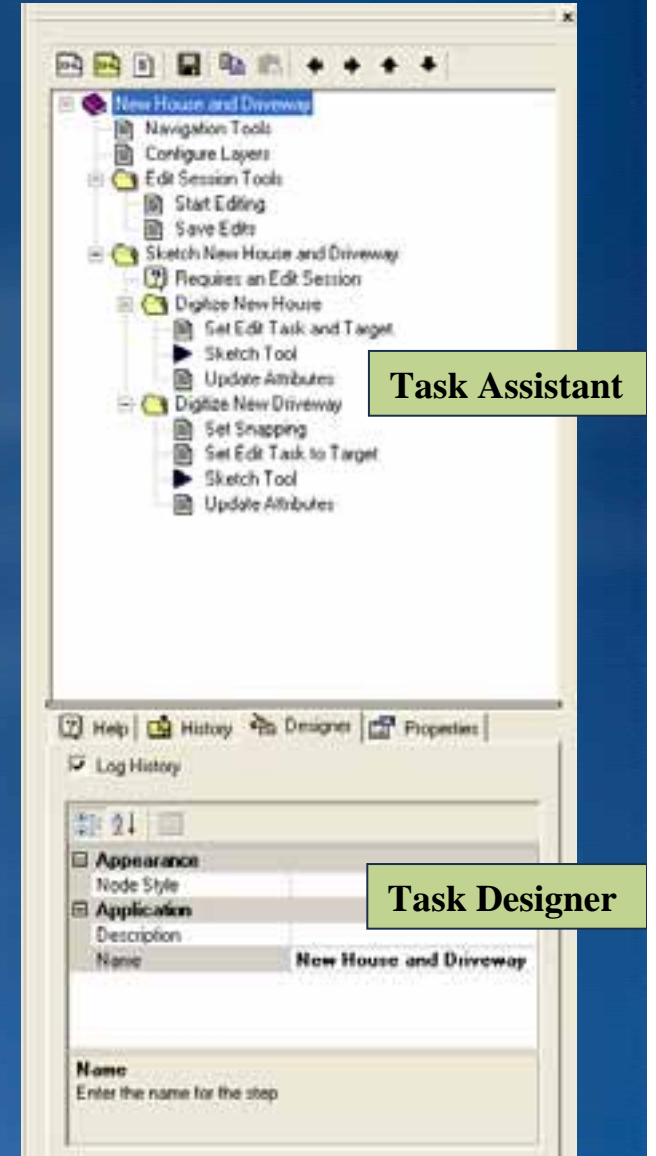
JTX Application

- End user interface
- Create jobs
 - Establish AOI
- Access existing jobs
- Execute workflow
- Notes/Attachments
- History log
- View queries and reports
- Editing data
 - Launch ArcMap
 - Load layers
 - Zoom to AOI
- Task Assistant Manager



Task Assistant Manager

- Can be launched with mxd from JTX workflow task
- Workflow direction inside ArcMap
 - Step by step instructions
 - Tracks history of tasks performed
 - Enables tools
 - Set layer properties
 - Set snapping and define a target layer
- Provides standardization of tasks
- Licensed with JTX
 - Can be used with or without JTX



Demo: JTX and Task Assistant Manager

- **Working with JTX**
 - Explore a job
 - View reports
 - Execute a workflow
 - Use Task Assistant Manager to complete editing workflow

Questions