DELAWARE GEOGRAPHIC DATA COMMITTEE

**Facilitating the sharing and coordinated use of spatially referenced data in Delaware**

# Meeting Summary
# Quarterly DGDC/SMAC Meeting
# 9:00 a.m.,
# May 27, 2005
# Kent County Administrative Complex
# 555 Bay Rd.
# Dover, DE

**Attendance List:**

| | |
|---|---|
| Mike Mahaffie | State Planning Coord. |
| Mike Ward | Kent County |
| Paul Sample | Legislative Council |
| Kevin Hickman | Dover/Kent MPO |
| Miriam Pomilio | DGS |
| Janet Lardner | DBF, Inc. |
| Mark Nowak | City of Dover |
| Chris Sommers | DC Group |
| Mike Krumrine | DNREC |
| Tom Peralta | New Castle Co. |
| Robert Madanat | New Castle Co. |
| Julie Neff | New Castle Co. |
| Jocelyn Lutte | Artesian Water |
| Skip Hurst | Artesian Water |
| Terry Witham | DSHS |
| Shelly Ide | DSHA |
| Jason Berry | Kent Co. |
| Matt Layton | Kent Co. |
| Brian Smith | GeoDecisions |
| Glenn Gladders | Del. Forest Service |
| Mollie Raley | DelDOT |
| Darren Dell | DelDOT |
| Chad Lauderbaugh | GeoDecisions |
| Kim Cloud | DTI |
| Brianne Press | URS |
| Cheryl Alt | Tetra Tech |
| Lillian Wang | DGS |
| Andrew Homsey | UD/WRA |
| John Callahan | UD/RDMS |
| Tina Callahan | UD/RDMS |
| Barbara Gladders | Div. of Public Health |
| George Yocher | Div. of Public Health |
| Seth Van Aken | ESRI |
| John Watson | DGS |
| John Tager | New Castle Co. |
| Rick Steffers | City of Wilmington |
| Al Balland | City of Wilmington |
| David Beattie | City of Wilmington |
| Jason Miller | Kent Co. |
| Denise Hakanson | Tim Schaeffer Corp. |
| Matt Laick | Sussex Co. |

## Welcome and Introductions

Mike Mahaffie began the meeting at approximately 9:05 a.m. with a round of introductions and thanks to Kent County for hosting the meeting.

## Project Updates

*DataMIL*

Miriam Pomilio gave a brief update on DataMIL activities. She noted that the Municipal Boundaries data set has been updated and that she is working with the three counties to update Parcel data. She also reported that Brad Strittmatter will start working on the DataMIL team, as IMS administrator, in the next few weeks.

*2005 GIS Conference*

Mike Mahaffie gave a brief review of the 2005 conference and introduced Andrew Homsey, the chair of the planning group for the 2006 conference. Andrew announced that the Conference is likely to be held at the University of Delaware's Clayton Hall and that planning meetings will begin soon. He asked anyone interested in helping with the planning committee to contact him.

*Roads/Addressing Data*

Mike Mahaffie gave an update on a project to create a reliable statewide roads and addresses data set that can be used for 911

and emergency dispatching. He noted that the Department of Safety and Homeland Security is signing a contract for a statewide data set from TeleAtlas North America to provide a short term solution to the need for a statewide data set for the 911 centers.

A long short-term solution will be a public/private partnership with TeleAtlas, spearheaded by DelDOT, to use TeleAtlas as a data aggregator to work with the counties, the state and with local governments to combine the best data to create a statewide data set.

*Elevation Data*
Mike Mahaffie gave a very brief update on the statewide LIDAR project that the USGS and NOAA have been working on with NASA. Raw data has been collected for all of Sussex County and the eastern half of Kent County. Elevation data is being processed from that data. The DGS is heading an effort to find funding to complete the rest of the state.

*GIS Coordination Legislation*
Mike Mahaffie reported that draft legislation is under review by the State Budget Office and may be introduced in the General Assembly. The legislation would create a GIS Coordination Council and formalize the DGDC with by-laws and officers.

**Data Development: Delaware School District Boundaries**
Don Berry, of the Department of Education, reported on efforts to create GIS data representing Delaware's School District Boundaries. Don explained that the boundaries started as text descriptions that were never all that exact; they used creeks, fence posts, owl's Nests and other features that move or disappear.

A project to digitize the boundaries was undertaken by the Department, working with the late Vern Svatos prior to his death. Vern was able to create a data set and recommended trying to align the boundaries to tax parcels.

Don noted that the Department is trying to follow-up on that suggestion, but has discovered some problems. He is looking for ideas on how to resolve several issues.

One problem is that many large parcels, which may eventually be developed eventually, are split by the District lines. If those parcels are developed, the resulting neighborhood would be split between districts.

Another challenge is to determine how to allocate split parcels among the Districts. In Sussex and New Castle Counties, when parcels are split, all the taxes go to one district or another. Therefore it should be possible to use that tax allocation to allocate the parcels to Districts.

The Department is considering a legislative proposal to follow that idea. In that approach, no districts would lose any tax revenue.

In Kent County, though, there are differences between what the County parcel and tax assessment data shows as the Districts and what the Department's District descriptions show. That makes the issue more complicated.

Don noted that the Department is now looking for ideas on how best to move forward. He led a brief discussion of various ideas among the members of the DGDC. Several ideas were suggested, including:

- Changing to county-wide school districts,
- Settling the issue in New Castle and Sussex Counties while the more complex issues of Kent County are discussed, and
- Using the State Board of Education as a Boundary Commission and Department of Education staff and others as a technical group to suggest boundary solutions.

**Software Issues: Arc 9.1 and Licensing**

Seth Van Aken, of ESRI, gave a presentation (attached) on changes with the release of ArcGIS 9.1. These include:

- New tools and a different allocation of tools among the various levels of the software,
- Backwards compatibility
- Compliance with Open GIS Consortium standards,
- New extensions,
- Changes to the network analyst extension,
- Improved schematics,
- An Improved maplex tool, and
- Standardization of data interoperability.

Seth also gave a demonstration of the of network analyst extension, which can be used to perform advanced routing and analysis tasks.

**Organizations 1: GIS at DTI**

Kim Cloud, of the Department of Technology and Information (DTI), gave a short presentation (attached) on her new role at DTI. Kim noted that she will be working to find ways to integrate GIS into the other services provided by DTI and will seek ways to increase the services available from DTI relative to GIS and spatial data. She noted that this is not yet an "official" DTI project, but that she is collecting information and working on an overview of what DTI's role might be.

Kim stressed that she wants to start learning what GIS Community needs from DTI. She noted that several state agencies need help in publishing data; these tend to be small agencies that are not positioned to provide their own IMS services.

She tied this to the need for data standards and stressed that DTI is not interested in owning any data for taking over any GIS responsibilities from any agencies. She said that DTI wants to play a supporting role.

To do that, she added, DTI will need to develop infrastructure standards for supporting GIS efforts.

Some other ideas she outlined were DTI acting as a portal to the several data repositories, help agencies serve data, supporting new projects, integrating with the existing clearinghouse, and using the Technology Investment Council at DTI to help identify new opportunities for collaboration.

Kim explained that the next steps will be for DTI to learn and understand Delaware's data and support needs and develop a strategy.

There was a wide-ranging discussion of these ideas. It was generally agreed that it will be valuable for DTI to understand the GIS and spatial data needs and activities of the GIS community.

There was support for the idea of providing IMS hosting services for smaller agencies.

Several members stressed the need to be careful that the ongoing data security efforts at DTI not unduly limit agency to agency connections and data sharing routes.

**Organizations 2: GIS in Kent County**
Mike Ward gave a brief overview of changes in the Kent County mapping and addressing office, including the move to a new County administration building and the pending addition of several staff. He noted that the new building will help with communication among the various county departments that work with spatial data. He looks forward to continued improvements.

**Tour: New Kent County Offices**
The meeting ended with a tour of the new County Administration complex.

# What’s New in ArcGIS 9.1

Seth Van Aken

ESRI

610-644-3374x13

# ArcGIS 9.1

## Overview

Major enhancements:

- Improved Quality and Performance
  - Over 1700 improvements since 9.0
- Improved GeoProcessing
- Network Analyst (new at 9.1)
- 3D ArcReader
- New Extension Licensing

# ArcGIS 9.1

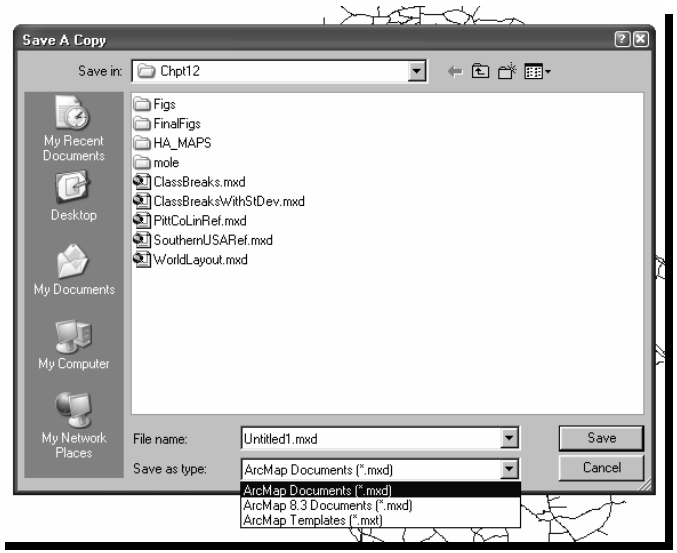
## Desktop

Stability and productivity enhancements

- Pan to selection
- Pause drawing
- Better support for longer field names
- Swipe tool
- Geoprocessing:
  - Add +80 tools to ArcEditor
  - Add +60 tools to ArcView
  - Add 22 tools to ArcInfo
  - New Merge Tool
- New feature to ease migration - ‘Save As’
- New improved data
  - 150m world wide imagery available for all users
- Much more…

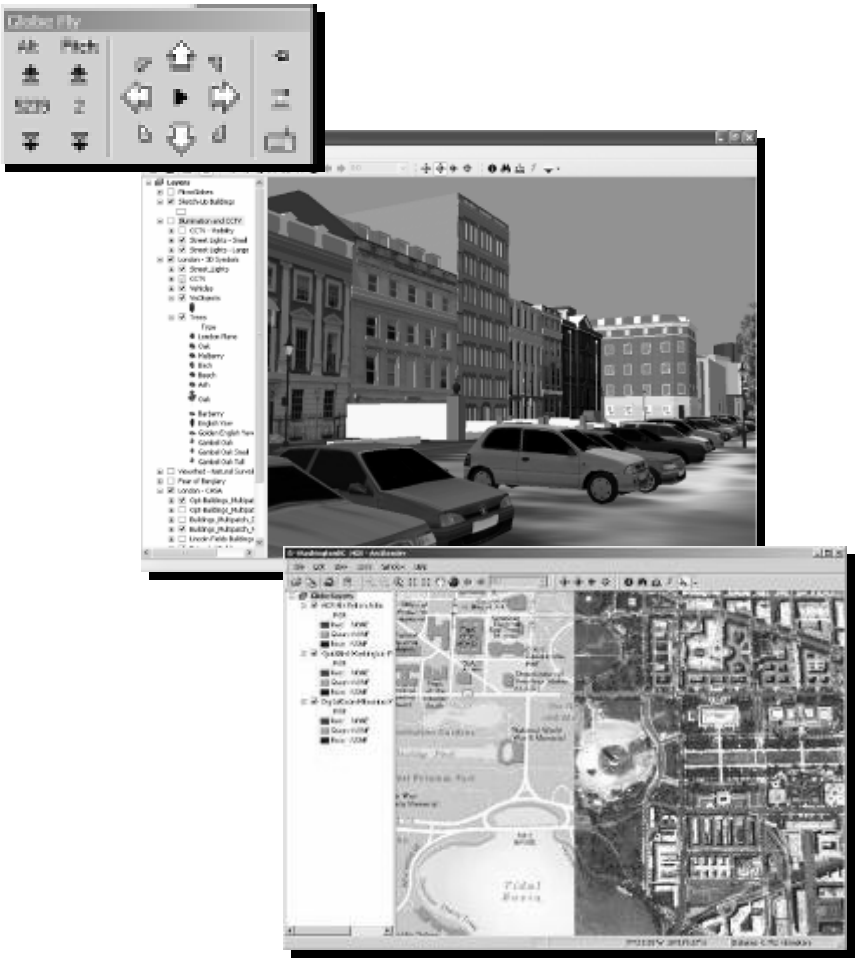
# New Save As Feature

- Save mxd, sxd and lyr files as 8.3
- New 9.0/9.1 features / functionality & data formats not backwards compatible
- No changes required in 8.3 projects
- 9.1/9.0 use same format
- Standard from this release forward



# ArcReader and ArcGIS Publisher

- **ArcGIS Publisher**
  - **Publisher Extension for Globes**
- **ArcReader**
  - **General Functionality**
    - **Layer Transparency**
    - **Swipe Tool (also now available in ArcMap)**
    - **ArcWeb Place Finder**
  - **ArcReader Globe**
    - **Global Navigation tool**
    - **Pivot Tool**
    - **Fly Tool**
    - **Target Tool**
    - **Animation player**
- **General Quality Improvements**



# ArcGIS 9.1

## OGC Standards

- Improved OGC format Support
  - Consume WMS in the Desktop
  - WFS provider in ArcIMS
  - Catalog Service (CSW 2.0) in ArcIMS Metadata Server
- OGC Simple Feature Conformance testing
  - DB2 – SQL types and functions
  - Informix – SQL types and functions
  - SQL Server – Binary schema
  - Oracle – Binary schema
  - ArcGIS – OLE/DB

# ArcGIS 9.1

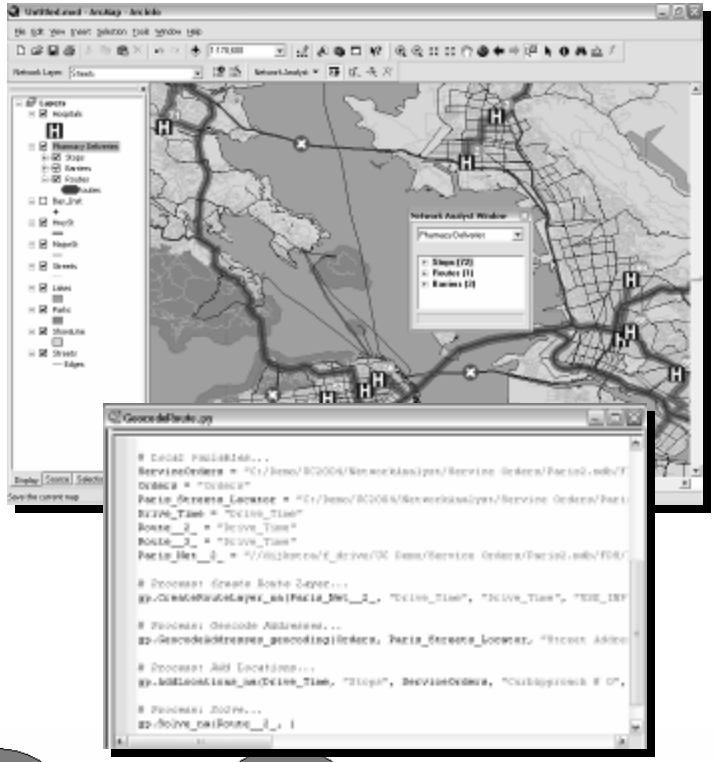
## Extensions

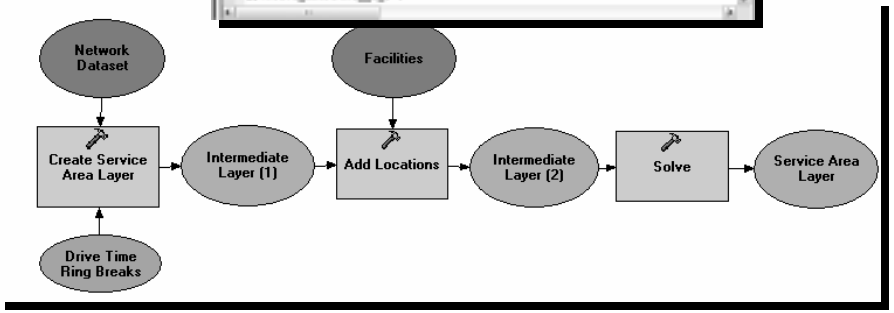
- New Network Analyst
- Improved Schematics
- Improved Maplex scalability and performance for large maps
- Include Data interoperability as standard optional extension in install
- Licensing changes

# Network Analyst

Easy to use network analysis on GIS data

- Simple User Interface
- Geoprocessing (Dialogs, Scripts, ModelBuilder)
- ArcObjects for developers
- Advanced multi-modal data model

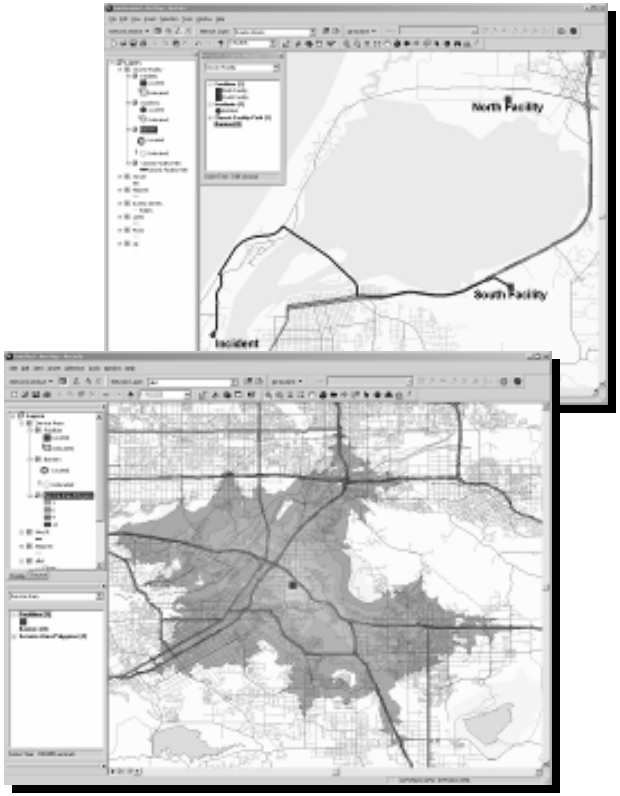




# Network Analyst

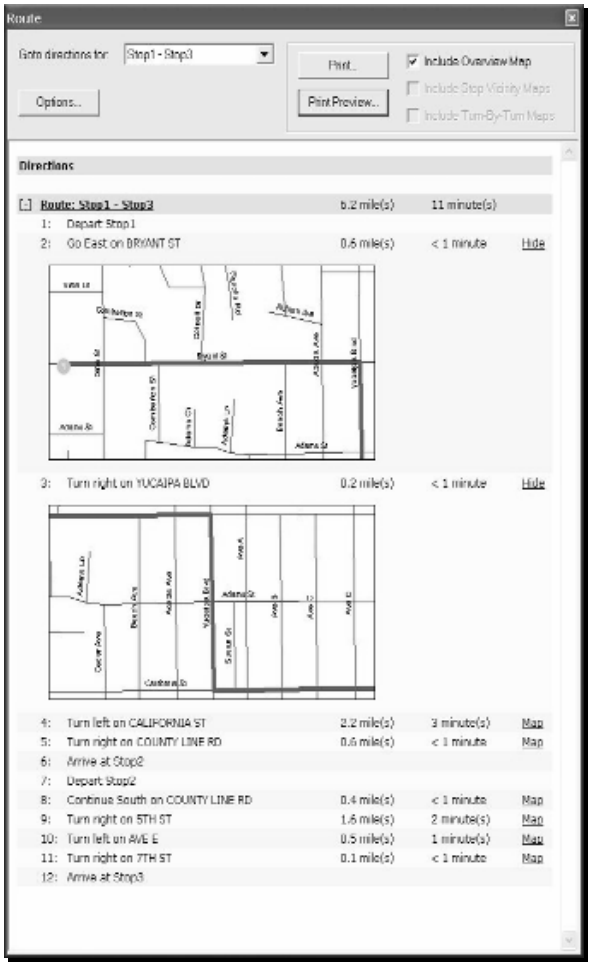
Many multi-modal network solvers

- Routing
  - Multi-point routing
  - Traveling salesperson
  - Time windows
  - Stop duration
- Driving Directions
- Closest Facility
- Service Areas
  - Complex polygon generation
  - Allocation across networks
- Origin / Destination Cost Matrix



# Network Datasets

- Layer types
  - Geodatabases
  - Shapefiles
  - SDC
- Multiple Cost fields (dynamic costs, fixed costs,…)
- Advanced Turn restrictions
- Hierarchical Routing (performance)
- Barrier Support



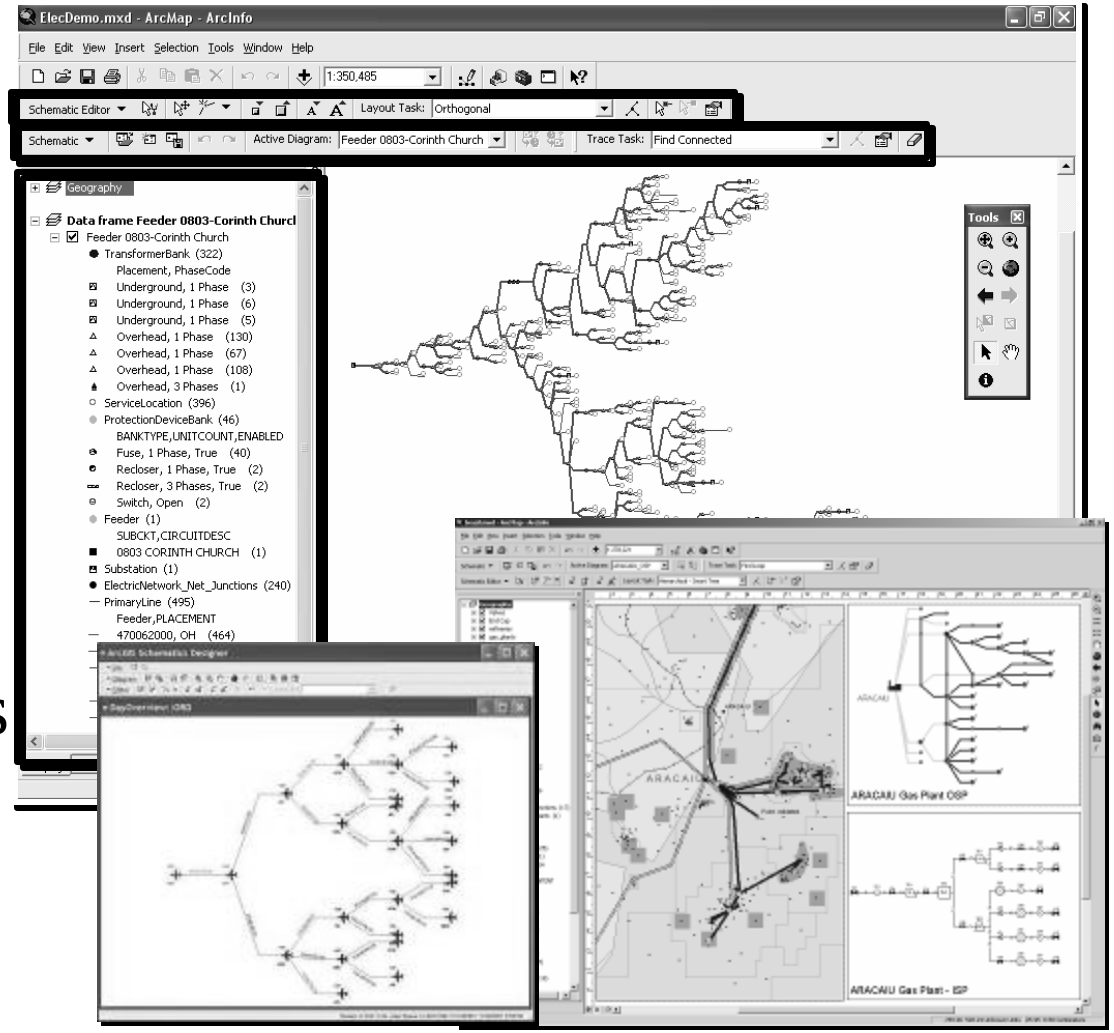
# Network Analyst Demo

# ArcGIS Schematics

## Integrated with ArcGIS

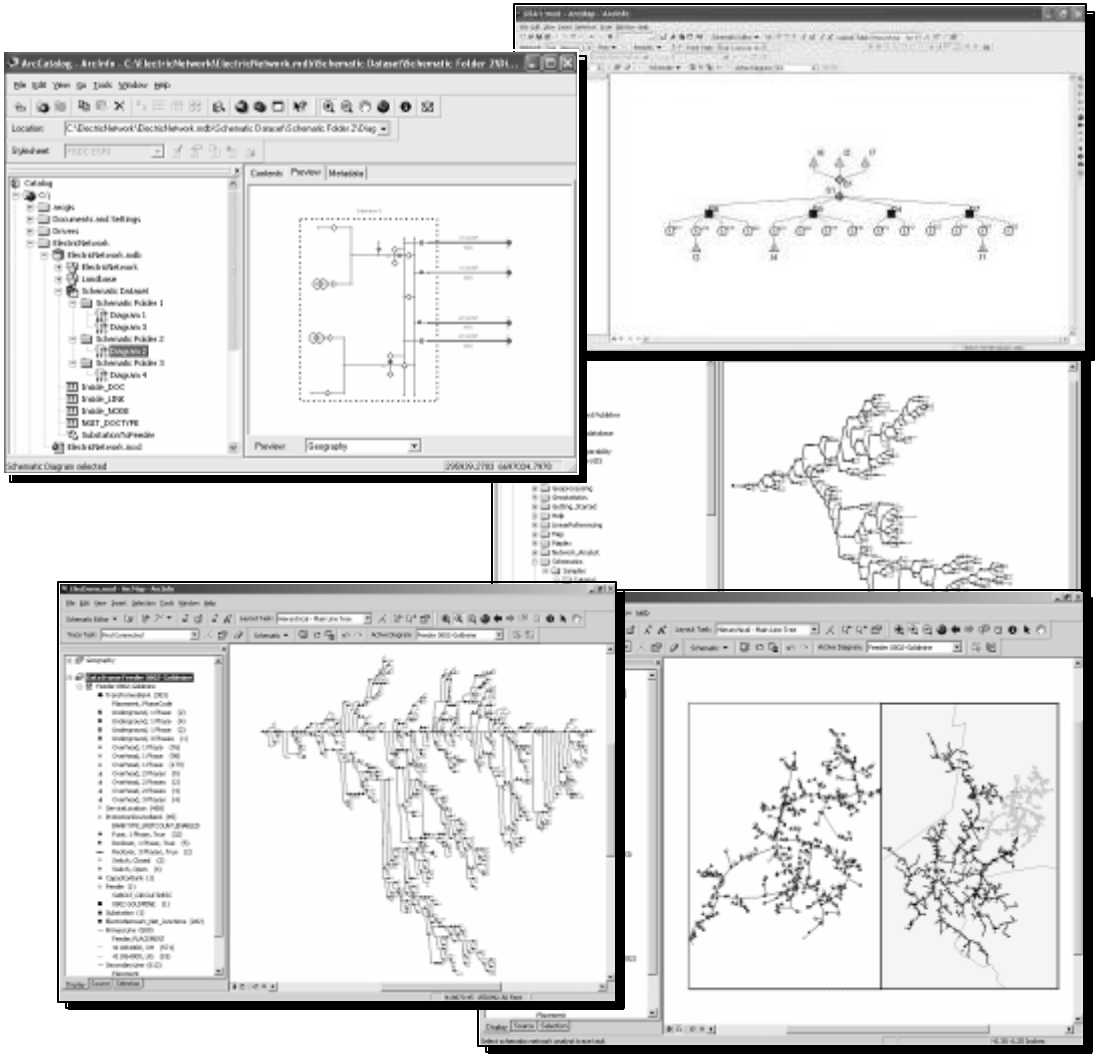
Usability Improvements

- Use of ArcMap standard Tools
- 3 schematic toolbars
- Diagrams added to data frames as layers



# ArcGIS Schematics

- New diagram types
- Schematics stored and managed in geodatabase
- New ArcObjects SDK



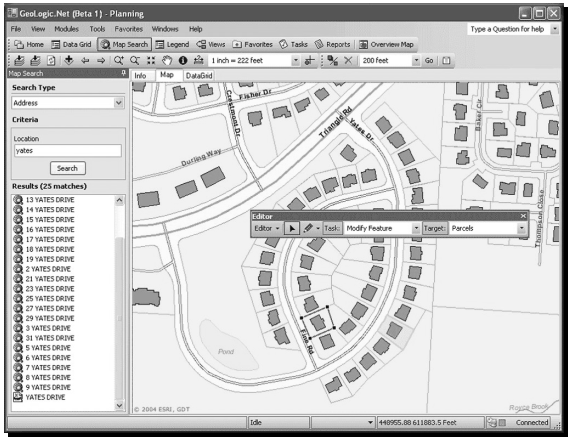
# ArcGIS 9.1

## New Extension Licensing

| Product | Maplex | ArcScan | ArcPress | StreetMap USA |
|---|---|---|---|---|
| ArcInfo | Core | Core | Core | Core |
| ArcEditor | Extension | Core | Core | Core |
| ArcView | Extension | Extension | Core | Core |
| ArcGIS Engine (Dev Kit and Runtime) | NA | NA | NA | Core |
| ArcGIS Server | NA | NA | NA | Core |

# ArcGIS Engine

- Enhancements
  - New LicenseControl
  - Improved Visual JavaBeans
  - New commands
    - Globe Fly & Swipe Tool
  - More developer samples & resources
- New Extensions
  - Network
  - StreetMap USA part of standard Engine Runtime



# ArcIMS

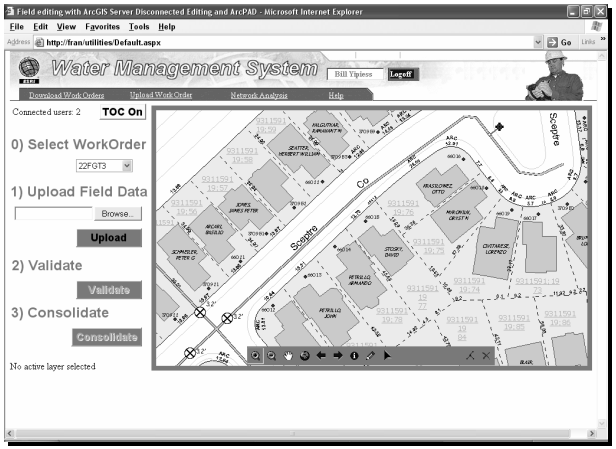
- Queries on dynamic layers
- SDE Connection check optimized
- Support for JPEG2000 and MrSid Gen 3 raster formats
- Full support for OAS 10g
- Metadata Server search performance improvements
- WFS provider

# ArcSDE

- **Improve quality, performance and scalability**
  - **XML column performance and scalability**
- **SDE export files exceeding 2GB in size**
- **OGC Simple Feature Conformance testing**
  - **DB2 – SQL types and functions**
  - **Informix – SQL types and functions**
  - **SQL Server – Binary schema**
  - **Oracle – Binary Schema**
  - **ArcGIS – OLE/DB**

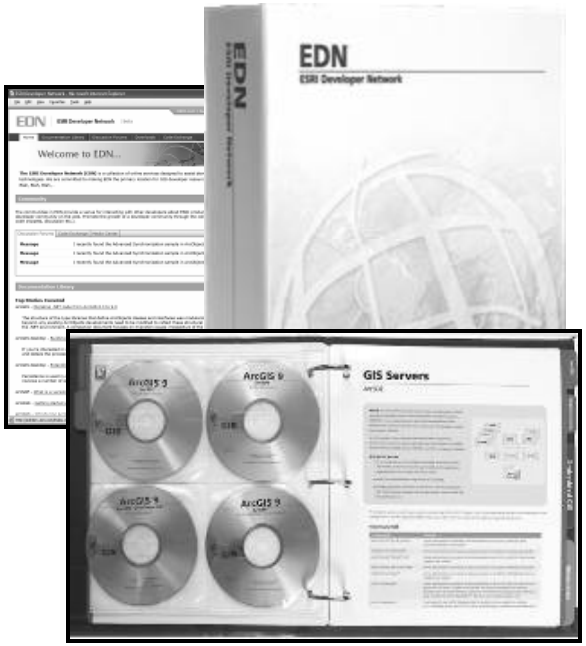
# ArcGIS Server

- Quality improvements
- Network extension
- Streetmap USA in core
- Application Server support improvements
  - IBM Websphere
  - Oracle Application Server 10g
- Drag/drop IDE support
  - Websphere Spatial Adaptor



# ESRI Developer Network (EDN)

**An Annual Subscription Program**

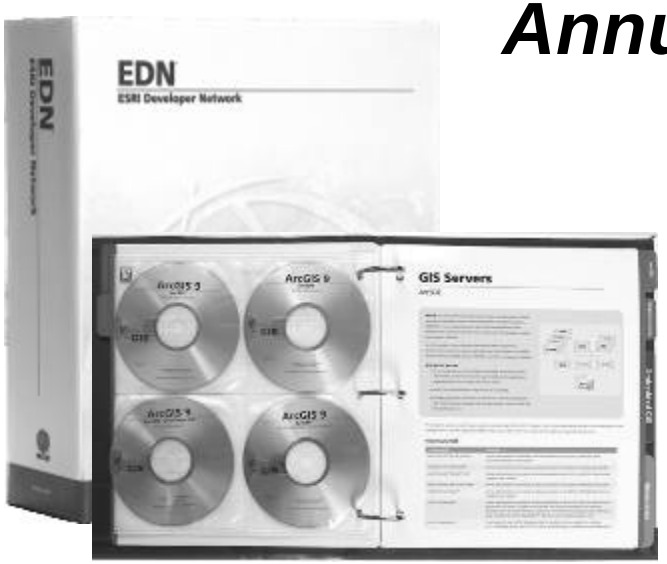



- Developer Centric
  - Licensed Per Developer
- For Development And Testing
- Includes ArcWeb, Engine And Server Technologies
- Developer Portal

**. . . Creates a Global GIS Developer Community**

# ESRI Developer Network

***Annual Subscription per Developer***

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## Software Library

- **ArcGIS Engine Developer Kit (inc. Ext, runtime)**
- **ArcGIS Server (inc. Ext)**
- **ArcIMS**
- **ArcSDE**
- **ArcWeb Services (100k credits)**

## Website

- **Advanced Support**
- **Training**
- **Implementation Services**

# Thank You

Seth Van Aken
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# DTI and GIS

What can DTI do to better serve the GIS community in Delaware?

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# Introduction

- Who am I?
  - Kim Cloud, Project Manager from the Department of Technology and Information
- Why am I here?
  - To open discussion regarding how DTI can better serve the GIS community, how can we help?
- Why me?
  - Working with DTI architects to find out more about GIS needs in Delaware, and how DTI can better serve those needs.

# Situation

- Various agencies have GIS projects planned and are looking to DTI to provide direction or services to publish their spatial data.

- DTI does not currently have an infrastructure in place to support GIS efforts in the State of Delaware.

# What can DTI do about this?

- Understand more about what the GIS community needs, wants & expects.
- Research infrastructure options that will enable DTI to support GIS efforts.
- Work with the GIS community to define infrastructure standards.

- *Important Note:*
  - DTI will **NOT** own the data

# Together DTI & DGDC Could…

- Develop GIS infrastructure standards.
- Identify a central location to hold spatial data.
- Find a way to help agencies serve spatial data.
- As new projects develop, DTI could help unify efforts across the state.

# Who could benefit from this?

- The general public looking for data.
- Agencies without the means to serve spatial data.
- Data Stewards – consolidated location for spatial data.
- Other state agencies looking for spatial data.

# What can DGDC do?

- Share your vision, needs and expectations
- Discuss concerns – Don’t hold back!
- Engage in a collaborative effort with DTI to define infrastructure standards and find a solution that will work for everyone.
- Brainstorm, share recommendations

# Wrap-Up

- Next Steps
  - Continue Discussions & Brainstorming.
  - Understand more about what is deployed currently in the state – economies of scale.
  - Develop a strategy.

# Thank You!!