RIDOT GIS Activities

RIGIS User Group Meeting

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RIDOT

Presentation Topics

- Pictometry Imagery Project Update
- GIS Historic Review Project
- GIS / CAD Integration

Pictometry Project Details

- Digital Imaging Project Funded Through a RIEMA Homeland Security Grant
- PM by RIDOT and RIE911
- Licensed to all State and Local Agencies
  - Hard Drives provided to all cities/towns
  - Enterprise server for State Agencies
  - Provided to CRMC, PEMA, Prov. Water, Consultants
- Software and Training Provided
- Leveraged E911 Sites and Roads for Geocoding

Pictometry Imagery

- Oblique (30º) Image Formats
  - Proprietary Pictometry
- Nadir (Ortho) Image Formats
  - Proprietary Pictometry
  - TIFF
    - 5300 Tile, 1.1 TB
  - Compressed ERDAS .ecw
    - 70 Tiles, 50 GB

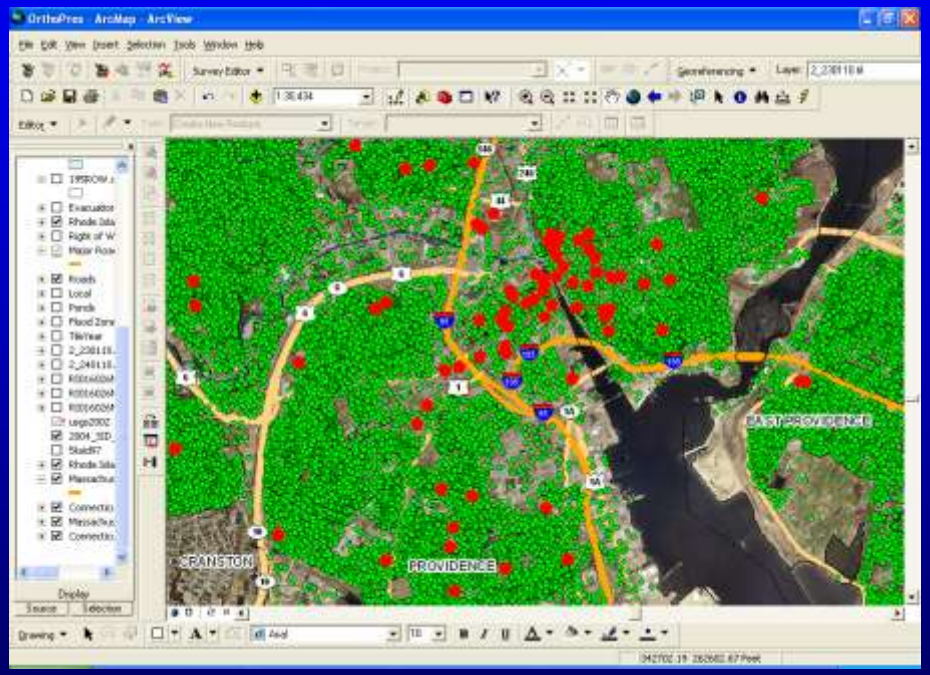
Oblique

Nadir

Getting Access to Imagery

- State Agencies
  - Contact Agency GIS Coordinator
  - Contact DoIT Service Desk
- Towns
  - Responsible for Local Distribution
- State and Local Consultants
  - Must have active contract and completed license agreement
- All
  - Nadir images through URI Digital Atlas
  - ArcGIS service or Google kmz file
  - Oblique images at Bing.com

GIS Historic Review



- RIDOT and RIHPHC
- Streamline Section 106 Historic Review
- Updating GIS database base on E911 site file
  - National Register, Candidate, Districts
- Scanned Paper Documents
- Developing workflow for digital submission of findings to HPHC

Geocoding Process

- Address Clean Up
  - Addresses which have a letter after a number-**Example: 392-A Card Ponds Rd**
    - Remove slash and make 392-A become 392A
  - Range of numbers - **Example: 139-145 High St**
    - Geocode automatically takes out slash and the address would be read 139145 High St.
    - Made each address in the range its own individual site. This way, 139-145 High St becomes 139 High St, 140 High St., etc.

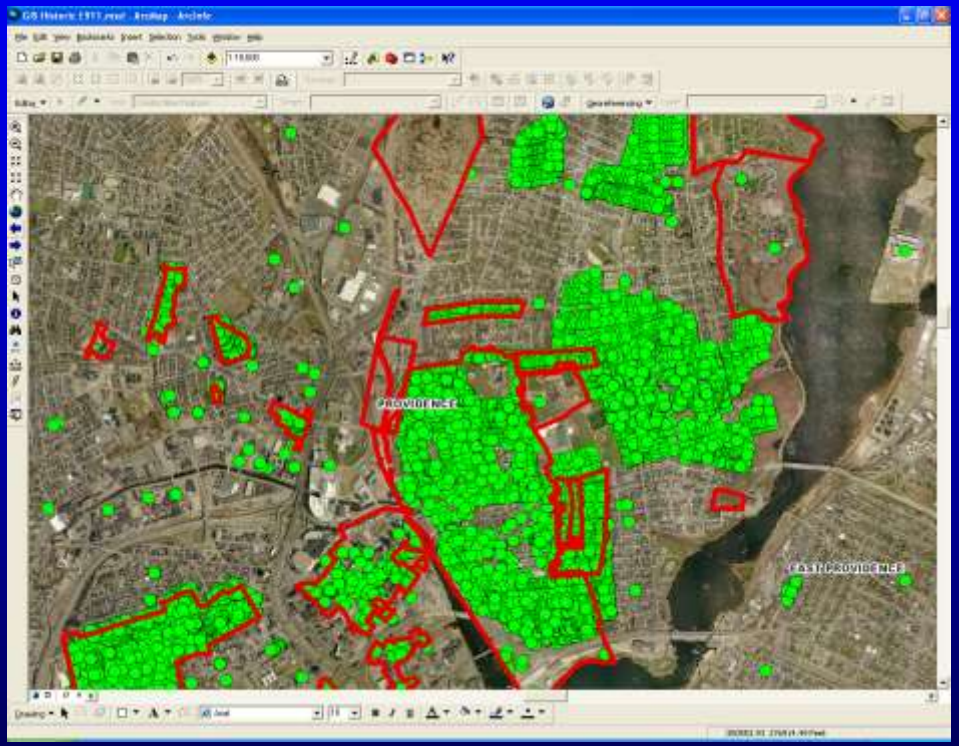
Geocoding Process

- Address Clean Up Cont.
  - Address has ½ after a full number-**Example: 266-1/2 Wood St**
    - Corrected these addresses by taking out the slashes between the number and ½ mark
- Street's which have numbers as names did not geocode **-Example: Second St or Third St**
  - Changed names to the actual number (2^{nd} or 3^{rd} st)

Geocoding Numbers

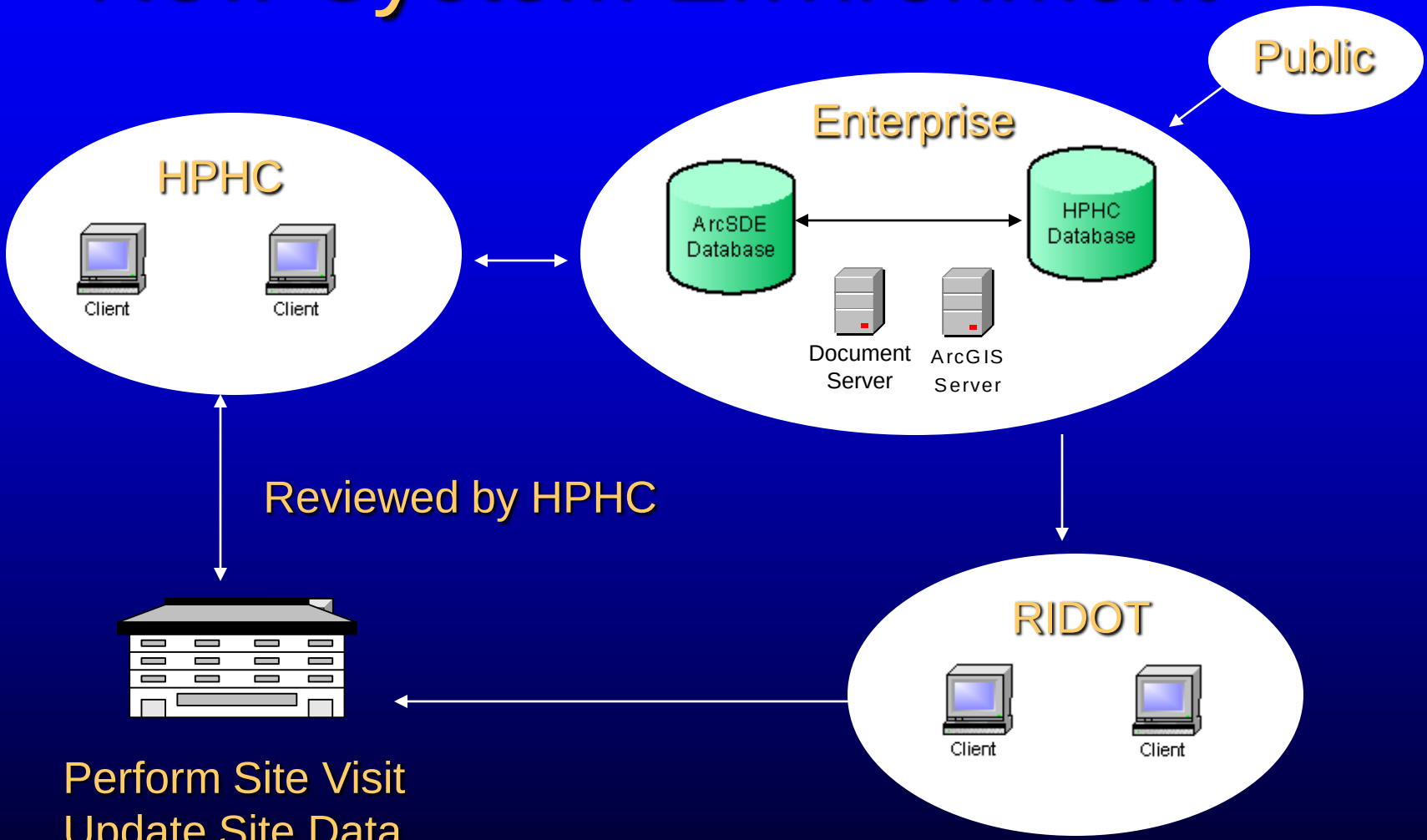
- HPHC Database contains 17,670 records
  - Matched over 19,000 sites
    - Increase due to splitting of address ranges
  - Unable to match 6,500 records
    - Lack of address information

Geocode Results



- Verify District Boundaries
- Identify new or updated districts
- Updated Historic site layer
- Final QA performed by RIHPHC

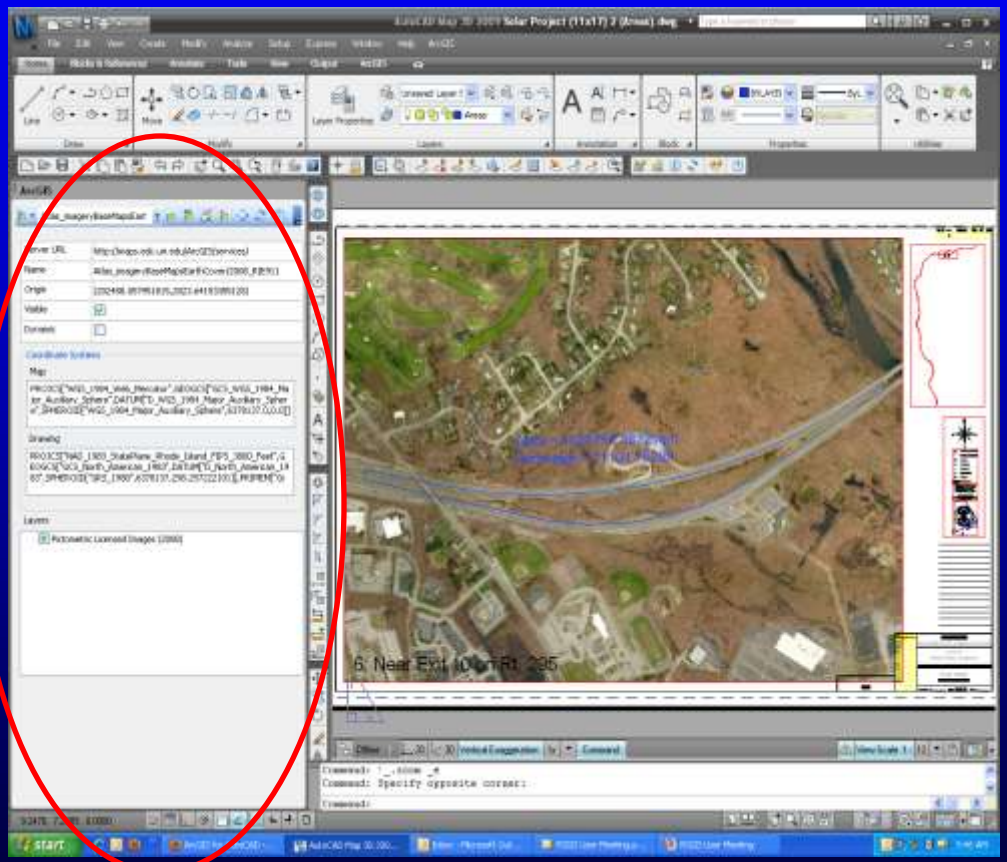
New System Environment



AutoCAD Map

- Create and manage spatial data. Bridged the gap between CAD and GIS.
- Enables engineers, planners, mapping technicians, surveyors, and GIS professionals to directly access, edit, visualize, and analyze a broad variety of CAD and spatial data in a familiar AutoCAD software environment.

ArcGIS for AutoCAD



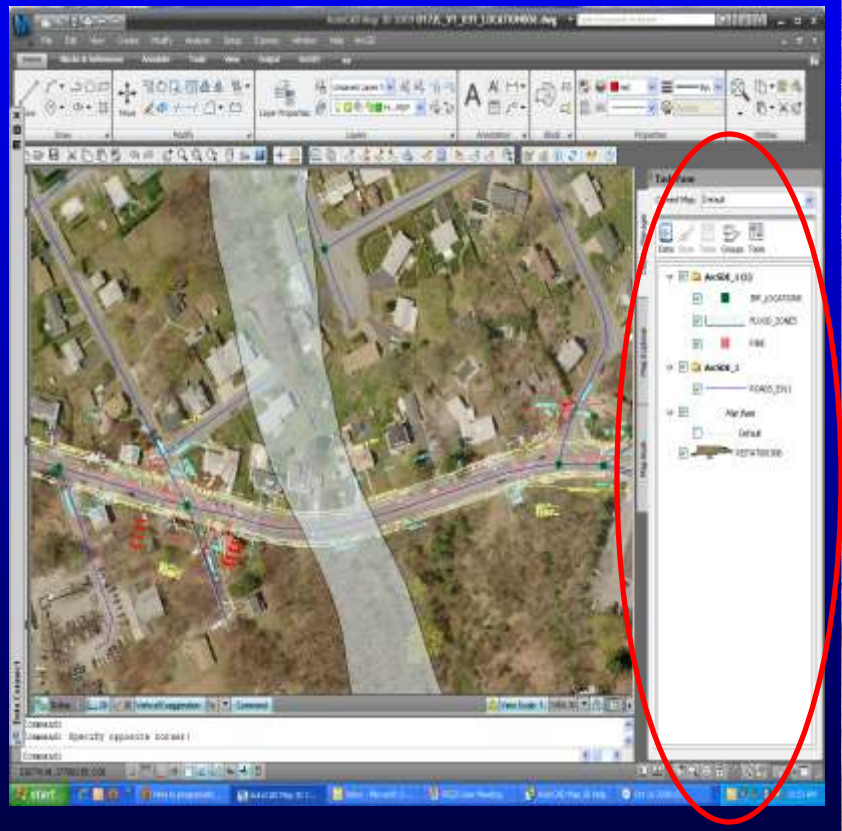
- Tool offers seamless interoperability between AutoCAD and the ArcGIS platform.
- Gain easy access to enterprise GIS data and imagery published by ArcGIS Server.
- Provides the ability to prepare CAD data for ArcGIS using your existing CAD standards.

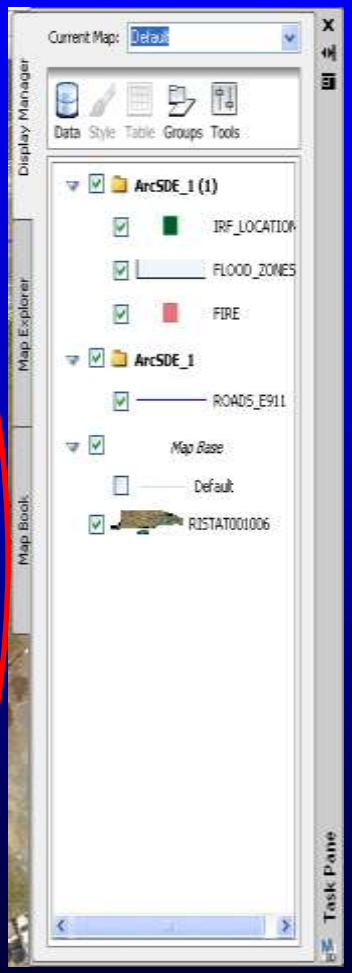
Map Task Pane

- Provides centralized access to the tasks and needed to create, manage, display, and publish maps.

- Data Connections:

  ArcSDE, MySQL, ODBC, Oracle, SDF, SHP, SQL, WFS, WMS, **Raster**.





Ultimate CAD Goals

- Update information on the servers directly from AutoCAD Map 2009 without having to use any supplementary program.
- Gain access to multiple data types directly from AutoCAD
- Facilitate the gathering of geospatial information in AutoCAD for engineers, surveyors, planners and other users.