

Update on Oregon's Address Point Repository Project

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Background – Geospatial Enterprise Office (GEO)

- Organized within the Office of the CIO at DAS
- Consists of GIO and seven staff
- GEO operates under Executive Order 00-02
- Coordinate the GIS activities of all levels of government in Oregon
- Promotes and shares library of geospatial data (Framework Data)
- Developed RAPTOR and works closely with OEM to maintain this situational awareness tool



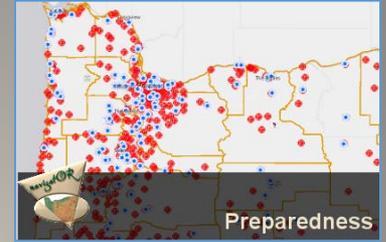
Oregon's Framework Themes



See <http://www.oregon.gov/DAS/CIO/GEO/pages/fit/fit.aspx>



Addresses



- Address points are a data element within the Emergency Preparedness Framework theme
- Addressing data is fundamental to many other framework data elements
- No standardized, centralized source for address point data exists in Oregon
- Point address data will be key input for emergency response when we get to NG911
- Two standards related to addresses:
 - FGDC Thoroughfare, Landmark, and Postal Address Data Standard
 - NENA Civic Location Data Exchange Standard (CLDXF)



The FGDC Address Standard

- A multi-purpose, comprehensive standard
 - Thoroughfare addresses (streets, walks, rivers)
 - Landmark addresses (named public objects)
 - Postal addresses (PO Boxes, Rural routes)
- Adopted by Oregon Geographic Information Council (OGIC) on March 19, 2014 as Oregon Addressing Data Standard
- Data model supporting this standard developed previously by Spatial Focus
 - Conforms to FGDC Standard
 - Being used by statewide address repository project



NENA's CLDXF Address Standard

- CLDXF = Civic Location Data Exchange Format
- Coordinated with FGDC Standard on addresses
- Differences from FGDC standard:
 - Related by *profile* to the FGDC address data standard:
A profile restricts or extends a base standard (without contradicting it) for a particular application
 - Records are location of phone calls, not addresses
 - Emphasis on ability to dispatch quickly - abbreviations permitted, some inconsistencies w/FGDC
 - QC and attribute elements of FGDC largely omitted
- OGIC intends to adopt CLDXF as a statewide standard



Address Point Data Repository Project

- Objective: Compilation of local address points into a statewide address repository
- Oregon has 290+ address authorities
 - Different capabilities, technologies
- Addressing process is similar for all
 - Messy, not standardized statewide



Address Point Data Repository

- Primary business driver is public safety – NG911
- Other users of address data benefit – 911 needs best address data
- Coordinating with Oregon Emergency Management
- Working with regional address data aggregators on technical processes
- Database model complies with FGDC (and Oregon) standard



Project Overview

- ✓ Build SQL Server database to house statewide address point repository
- ✓ Assemble address points where they already exist and load into the repository
- Conduct three-county pilot project
- Provide web-based tool for address authorities to maintain point based addresses if they are not already doing so and want such a tool
- Develop ETL processes to maintain the repository
- ☐ Make statewide addresses available to the GIS community



Database Design

- Data model designed and implemented by Spatial Focus as SQL Server database (part of USGS grant)
- Designed to meet the FGDC address standard
- The database schema is available on request



Address Point Web Editing Tool

- GeoComm is working with us to customize an address web editor tool for Oregon address authorities
- Currently being tested as part of pilot project with Josephine, Curry and Hood River counties
- Goal is to have tool ready by early 2015



Standardizing the Data Through ETL

- Extract/Transform/Load Tools
- Computer code that:
 - Extracts the address data from a given source
 - Transforms the data into the standard format required by the address repository
 - Loads the data into the repository
- Means no one has to change their process
- Does NOT change the address information



ETL Process

- ETL process designed by Spatial Focus using FME, SQL Server and ArcGIS to update/edit address database
- Currently a complex set of non-automated steps
- LCOG being brought onboard to test and refine ETL with their (Lane County) data
- LCOG will then implement ETL for the three pilot counties
- Goal is to complete this work by end of 2014
- Lessons learned from pilot will inform next steps



QUESTIONS?

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