A Geo-Coding Strategy for Oregon

Cultural and Demographic
GIS Framework Implementation Team
Vision Statement

- To be able to locate any address in Oregon
- Coordinate with other potential databases
- Coordination with Transportation Framework Implementation Team
- Coordination with Cultural Framework Implementation Team
Geo-Coding Process

Addresses
- Address Number
- Street Name
- Zone (city, zip, zip+4)

Transportation
- Address Range
- Street Names/Aliases
- Zones (left/right)

Linked in GIS
Today’s Situation

- Currently have two statewide road coverages
  - ETAK/TeleAtlas
  - Census 2000

  \[ \text{Both have Problems} \]

- We currently have a huge resource of potential GIS databases in addresses: Employment, Unemployment, taxes, welfare, medical, hazardous materials, permits, etc………..
How Did We Get Here?

- Current transportation GIS Coverage are out of date *(at best only can get 75% of addressable data in Oregon)* based on some stuff jb has tested
- Address files always need editing and re-formatting
- T-FIT and C-FIT are *years* from having statewide coverages
- Therefore, many addresses in Oregon can not be geo-located with existing coverages. So…….

*Where do we go?*
Available Options

- Purchase new transportation network
  - Disadvantage: Cost
- Develop process for geo-coding as much data as possible with existing covers
  - Disadvantage: Accuracy/Completeness
- Develop statewide address point coverage (based or not based on Transportation)
  - Disadvantage: Timeliness
Commercial Transportation Covers

- GDT for single agency is roughly $10,000. A statewide enterprise version is about $325,000.
- NavTech - $$
- TeleAtlas - $$$
Geo-coding Process

1. Standardize Address fields
   - Establish Zones (City, Zip)
   - City to Zip Verification

2. Run Postal Service Verification (if available)
   - FinalList (DHS mainframe program)

3. Geo-Code to ETAK/Tele-Atlas
   - Tight Road Ranges
   - More Aliases (road names)

   - More Roads (updated coverage)
   - More inclusive address ranges (works better for additions)

5. Create Prioritization for manual digitizing
Geo-coding Potential Improvements

- Update Zone Information
  - Use Postal Zip +4
- Piecemeal (cobble) together local improvements into existing methods (Future T-FIT data)
  - for example use Metro, Polk Co covers where ETAK, Census have failed

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>Improved Precision</td>
<td>Extra Work</td>
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Address Point Cover

- Wait for address point coverage to be completed
  - Based on Tax-lot (ORMAP)

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>Not dependent on Transportation</td>
<td>Long way off, Harder to maintain, no data steward</td>
</tr>
<tr>
<td>Network</td>
<td>data steward</td>
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