

# A Geo-Coding Strategy for Oregon

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*Cultural and Demographic  
GIS Framework Implementation Team*

# Vision Statement

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- 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 } *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?

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- Current transportation GIS Coverage are out of date (*at best only can get 75% of addressable data in Oregon*) based on some stuff jb has tested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

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- 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

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- 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)
4. Geo-Code Unmatched Address to Census-2000
  - 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

Advantages

Disadvantages

Improved Precision

Extra Work

# Address Point Cover

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

## Advantages

Not dependent on  
Transportation  
Network

## Disadvantages

Long way off,  
Harder to maintain, no  
data steward