Spatial Focus
FGDC CAP Grant 2011
Review of Planned Activities

PRESENTATION TO FGDC CAP GRANT COMMITTEE
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The United States Thoroughfare, Landmark, and Postal Address Data Standard

- Endorsed by FGDC on Feb. 9, 2011
- Developed by Address Standard Working Group of URISA, under authorization by FGDC
  - Broad community participation (Wiki, presentations, etc.)
  - Early adoption by users
    - States (Massachusetts, Oregon, Minnesota)
    - Local Governments (DC; Fairfax County, VA; City of Charlotte; Fulton County, GA)
  - Strongly expressed need for standards
Background of the Address Standard

- The Address Standard is complex
- Implementation is expected at the Federal, State and local government levels
  - There are significant differences in the overall strategy of implementation at each of these levels
- Private sector implementation by address aggregators and software vendors is also expected
  - Simplified reference implementation will give them guidance and assistance
- Keeping with the development methodology previously followed by the Address Standard Working Group under the authority of FGDC and URISA, a professional organization
  - The design of the quality and data exchange tools will be an open and transparent process
Starting a Practical Implementation

- Wide variety of user address management systems in place
- Wide variety of data schemes in use
  - Implementation tools need to be flexible
  - Implementation tools need to be extensible
  - Implementation tools need to support simple and common cases
- Inconsistent Quality Control Usage
  - No standard Quality Control reporting
  - Implementation needs to (partially) automate QC testing
  - Implementation needs to automate QC reporting
Tools For Practical Implementation

- Focus on Address Data Quality (SQL) and Address Data Exchange (XML)
  - Least readable parts of the standard
  - Technical components make them less approachable
  - Tools can help users “decode” the standard
- Spectrum of users targeted
  - Address assignment and repository personnel
  - Commercial and open source software designers
  - Data aggregators
- Prototypes will point to fertile ground for developing “finished” tools
- Approach applicable to multiple platforms
Towards Tools

• Step 1: Identify Tool Modules
  ○ Candidates include:
    ▸ Field mapping to Data Quality views or Data Exchange XML tags
    ▸ Decision trees for using elements of Data Quality and Data Exchange
    ▸ Flagging data
    ▸ Prototype implementations for selected Data Quality measures

• Step 2: Describe Tool Modules
  ○ Functional requirements
  ○ Work flows
  ○ Dependencies
Towards Tools

- **Step 3: Design prototypes for tools**
  - Prototypes will be incomplete
  - May simulate selected functionalities
  - Created to discover further design requirements

- **Step 4: Review design criteria and prototypes with addressing community**
  - Consult with local, state and federal agencies
  - Gather input from various parts of the country

- **Step 5: Prepare Work Program for Implementation**
Addressing Community: the Heart of the Effort

- Address standard itself came from community needs
- Address standard process provides a model for community involvement
- Essential for including a broad range of perspectives.
  - Examples from the address standard
    - Separator elements to accommodate hyphenated addresses in Queens, NY and Hawaii
    - Address Number Prefixes for:
      - PLSS references in midwestern addresses
      - Negative addresses in the Pacific Northwest
    - Examples describing subaddresses of unnumbered thoroughfare addresses in Puerto Rico
- Similar conditions will inform address tool designs.
## Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Deliverable</th>
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</thead>
<tbody>
<tr>
<td>Identify Tool Modules</td>
<td>Complete a requirements list of the tools required</td>
<td>Technical Memorandum: Requirements List for Tools for Address Data Exchange and Address Data Quality Testing</td>
</tr>
<tr>
<td>Design Prototypes for Tools</td>
<td>Design prototypes for most critical tools</td>
<td>Prototypes for most important tools for Data Exchange and Data Quality Testing, with documentation</td>
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<tr>
<td>Test Tools with in-house data, adjust and re-test with clients and volunteer organizations</td>
<td>Coordinate review of outlines and content descriptions with local, state, and federal agencies, and address practitioners for comprehensiveness of detail and information</td>
<td>Technical Memorandum: Results of User Testing with Prototype Tools</td>
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<td>Prepare Work Program for Completion of Tools</td>
<td>Prepare a comprehensive work program for the development of tools as modules, including content testing and peer review.</td>
<td>Report: Work Program (including Tasks, Level of Effort, Estimated Costs) for development of tools for Address Data Quality and Address Data Exchange</td>
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Questions?