ArcGIS Field Data Collection for Health and Human Services

Technical Workshop
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Workshop Goals

• Understand ArcGIS Platform field data collection options
• Understand how to create layers for data collection
• Learn to configure and collect data with Collector for ArcGIS
• Understand how ArcGIS crowdsourcing tools can integrate and enhance existing HHS workflows
• Understand how Operations Dashboard can provide a real-time tool to monitor field data collection
Field Mobility & Data Collection

Challenges

- Custom devices
- Standalone systems / Redundant data
- Enterprise maps / Consumer maps
- Complex workflows / Multiple “sources”
- Security / Sharing
- Reporting lag / Operational awareness
- Connectivity requirements
- Training
Field Mobility & Data Collection
Solutions Covered in Workshop

- **ArcGIS Desktop**
- **Portals** (*ArcGIS Online / Portal for ArcGIS*)
- **Apps** (*Collector for ArcGIS, Navigator for ArcGIS, Operations Dashboard*)
- **Configurable Templates and Solutions** (*GeoForm, Citizen Problem Reporter - Crowdsourcing Reporter & Manager*)
An Integrated Web GIS
Flexible Deployment Options

On-premises

Public Cloud

SaaS

Hybrid Deployments
Field Data Preparation
ArcGIS Desktop (ArcMap or ArcGIS Pro)

Steps:
1. Determine data model
2. Create geodatabase
3. Define feature class
4. Setup fields
5. Theme data
6. Publish service
ArcGIS Desktop
Professional GIS
How to Prepare Data for Field Data Collection

**ArcGIS Desktop Demonstration**

<table>
<thead>
<tr>
<th>Survey Type</th>
<th>Ref</th>
<th>Field Name</th>
<th>Field Description</th>
<th>Data Type</th>
<th>Allow Null</th>
<th>Pick List</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident</td>
<td></td>
<td></td>
<td>Homeless Point in Care Count - Observation Tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total persons staying</td>
<td></td>
<td>Adults</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **1. Please indicate why you are using the observation tool:**
  - You are unable to enter a site
  - You cannot conduct a PIT survey (person refused to answer questions,language or other problems)

- **2. Total persons staying to:**
  - Adults

- **3. Location where observed**
  - Example: northwest corner of 3rd Avenue and Main St.

- **4. Is this person homeless?**
  - Yes
  - No

- **5. What is the person’s age?**
  - 18 years or older
  - Under 18 years

- **6. Is this person male or female?**
  - Male
  - Female

- **7. Are they a veteran?**
  - Yes
  - No

- **8. Race**
  - White
  - Black
  - Asian

- **9. Ethnicity**
  - Native American

- **10. Homeless Reason**
  - Homeless
  - Work
  - Health

- **11. Share as Service**
  - Publish a service
  - Save a service definition file
  - Overwrite an existing service
Field Data Preparation
Portals (ArcGIS Online or Portal for ArcGIS)

Steps
1. Create content
2. Share content
3. Configure webmap
4. Publish application
WebMap
Foundation of a WebGIS

- Central tool to add, view and configure geographic content/capabilities
- Perform Analysis
- Edit data
- Publish and share results
Group Organization & Sharing

- Organizational units
- Workflows
- Sharing and access control
- Content organization
How to Prepare Data for Field Data Collection
Portal Demonstration
Steps
1. Collect field data (crowdsourced)
2. Integrate into workflows
3. Review data
4. Collect field data (organizational)
5. Monitor field operations in real-time
Citizen Problem Reporter & Manager
Crowdsourcing and Workflow Integration

• ArcGIS Solution for Government
• Configurable application template
• Service request and resolution
• Browser & mobile friendly
• Form centric data collection & editing (based on configuration)
• Security and sharing options (public access)
• Technical support
Collector for ArcGIS
Field Mobility and Data Collection

- ArcGIS Foundational App
- Complex workflows
- Android or iOS (*Windows Beta*)
- Security and sharing options (*no public access*)
- Map centric
- Connected or disconnected
- Data collection and editing
- Technical support and training
Operations Dashboard for ArcGIS
Operational Awareness and Real-time Tracking

- ArcGIS Foundational App
- Real-time operational awareness
- Windows and browser app
- Security and sharing options (*Public access*)
- Display widgets
- Technical support and training
GeoForm
Crowdsourced Data Collection

- Configurable application template
- Browser & mobile friendly
- Form centric data collection
- Security and sharing options *(public access)*
- Technical support
Navigator for ArcGIS
Enterprise Navigation

- ArcGIS Foundational App *(subscription)*
- Integrated enterprise navigation
- iOS *(Android in development)*
- Security and sharing options *(no public access)*
- Map centric
- Connected or disconnected
- Technical support and training
Field Data Collection Demonstration
Field Data Collection for Health and Human Services

Summary

- ArcGIS Portals and Applications
- Suite of enterprise tools in the ArcGIS Platform
- Solutions to address complex workflows
- Internal and external audiences
- Security and sharing options
Field Mobility and Data Collection

Other ArcGIS Platform Solutions

ArcPad & GeoCollector
Application Templates
Explorer for ArcGIS
Survey123
Survey123 for ArcGIS
Developer SDKs & APIs
Crowdsourcing
Web App Builder
ArcGIS for Windows Mobile
Accessibility

Knowledge Workers

Executive Access

Public Engagement

Work Anywhere

Enterprise Integration

Professional GIS

Web GIS
Any Device, Anywhere, Anytime
Resources Links

- ArcGIS for Mobile
- Collector for ArcGIS
- Preparing Data in Desktop for Collector
- Publish Features in ArcGIS Online
- Citizen Problem Reporter
- Operations Dashboard for ArcGIS
- Navigator for ArcGIS
- Limit Public Access to ArcGIS Online Layers