Collector for ArcGIS

Paul Barker

Bert Yagrich

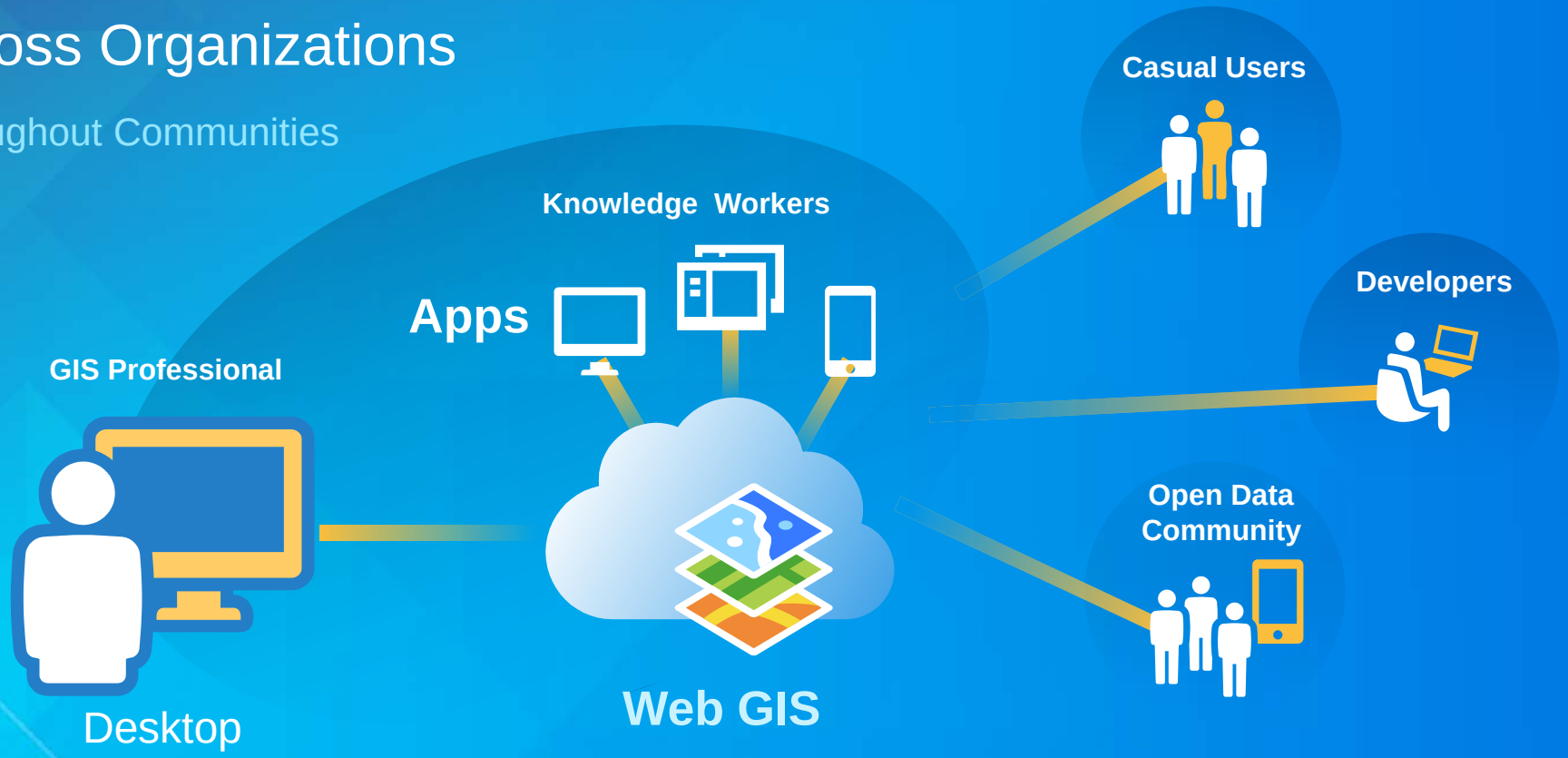
Agenda

What are we going to cover today?

- ArcGIS as a platform for data collection
- Device strategy and field data collection
- Collector for ArcGIS an overview
- Working offline
- Demo
- Working with relationships
- Demo
- Tips and tricks
- What’s next?

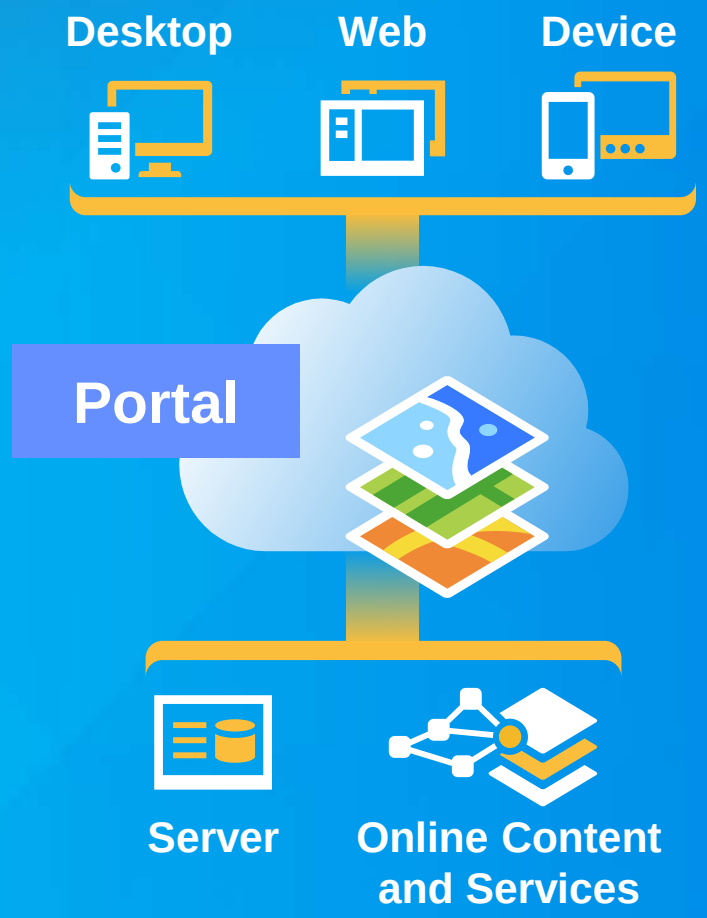
Web GIS Extends GIS Across Organizations

Throughout Communities



Web GIS Extends GIS Across Organizations

Throughout Communities



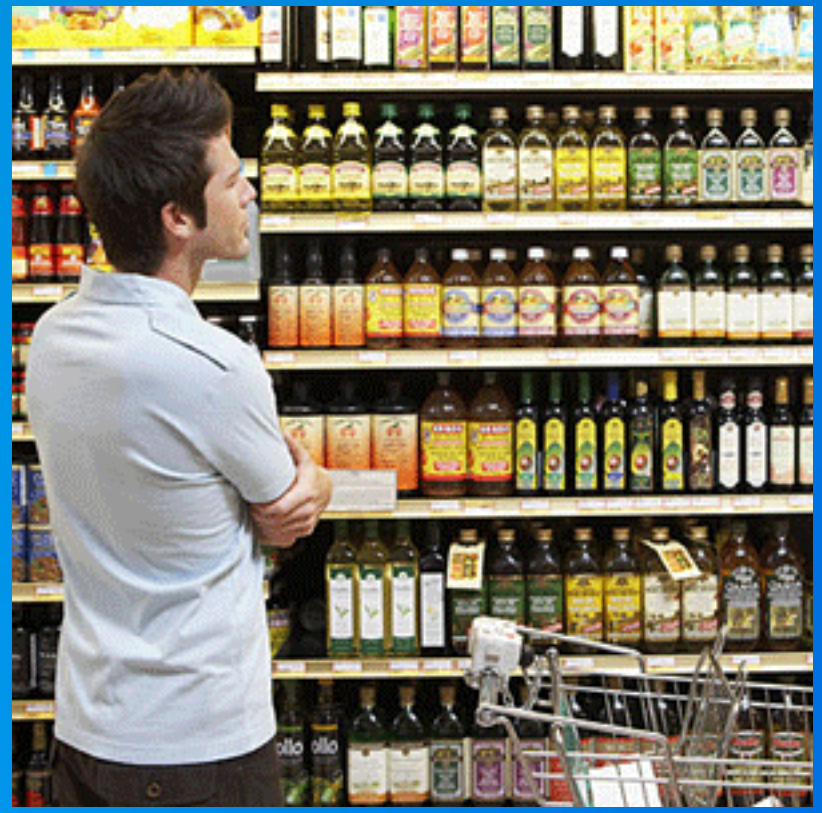
Providing Mapping, Analysis, Data Management, and Collaboration

Available on the Open Web . . .
. . . and On-Premises

Device Strategy

Get the device that makes sense for your work

- Identify the level of ruggedness required
- Hardware requirements
- Decide on the size
- Software requirements
  - Off the shelf, custom, etc.
- Do you have IT restrictions
- Choose a platform
- Do a pilot project before scaling up
- Cheap is tempting but not always the right choice



Source: www.trinda.net

Collector for ArcGIS an Overview

What is the problem we are trying to solve

Organizations need a easy way to build or maintain a GIS of authoritative data

- **Some of that data is collected from scratch in the field**
- **Some of that data comes from other sources (surveying, photogrammetry, digitizing)**
  - **That data needs to be validated by ground truthing**
- **Some of that data may already exist and simply needs to be assessed and updated**
  - **Condition of assets**
- **In the “past” this was done with notebooks, clipboards, and maps**
  - **Can be error prone, and slow down the turn around time to make that data accessible and useful to your organization**

Collector for ArcGIS an Overview

What can Collector for ArcGIS do ?

- **Collect and update data**
  - Using your location or the map
  - Fill out forms
  - Capture media (pictures, videos)
  - Additional tools to help your field workforce (measure, search, basemaps, directions)

- **Types of use**
  - Collect and inspect assets
  - Ground-truth their GIS data
  - Make observations/conduct surveys
  - Replace paper-based forms/process
  - Spatial awareness in the field

Collector for ArcGIS an Overview

How can I make a map for collector?

- **Offline layers needs to have sync enabled**
- **Tips: leverage domains, subtypes, default values, scale ranges etc.**
- **Choose symbology for the end user (sunlight)**

Collector for ArcGIS an Overview

How can I make a map for collector?

Add your layers to your map

Configure the map: forms, symbology, tools

Share to your field users

- **Only show the fields in the form that the end user needs**
- **Turn off tools the user wont use to do their job (measure, basemap etc)**
- **Use scale dependency to hide read only layers till they're needed**
- **Side load basemaps to device to save time**

Working with offline

Can you hear me now ?

- **Offline is a great way to work in areas of no connectivity**
  - **Requires**
    - **A sync enabled feature service either hosted in AGO or from your own server (10.3.1 recommended)**
    - **Tiled map service (basemap) with export tiles enabled or a previously created/side loaded TPK**
  - **Sync frequently when you have access to a stable connection**
    - **Reduces the risk of timeouts**
    - **Attachments can add up and cause sync to take awhile**
  - **If you are using server and seeing failed syncs check the server debug logs for more information**
  - **Increase the IIS uploadReadAheadSize for your server (~20mb)**

Working with offline

Can you hear me now ?

- **Avoid ownership based access (this is not supported at this time in offline)**
- **Recovery tool in desktop:** *Copy Runtime Geodatabase To File Geodatabase*
  - **This is not a substitute for sync, it is intended for recovery scenarios (deleted service)**
  - **Make sure to copy the entire offline map folder to your computer (use itunes for apple devices, android just plug in)**

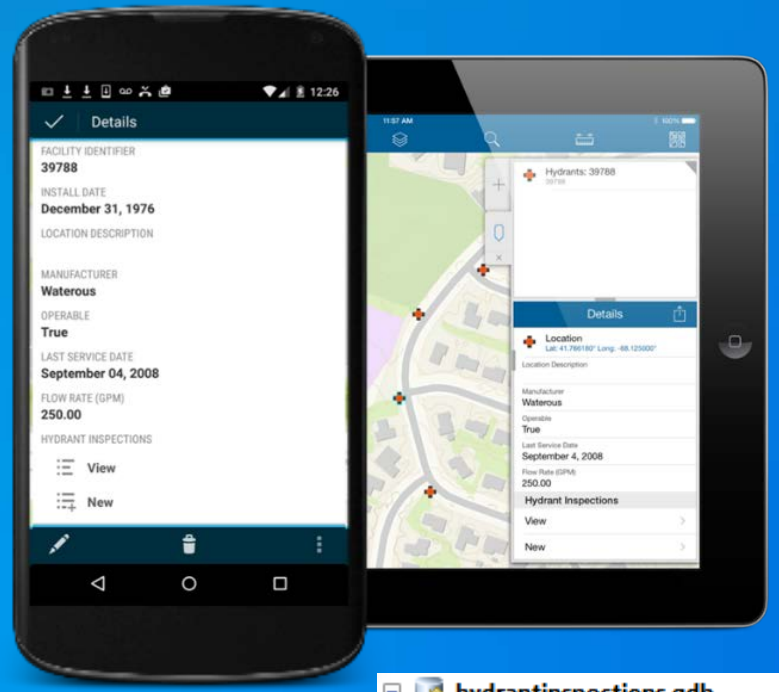
Offline Demo

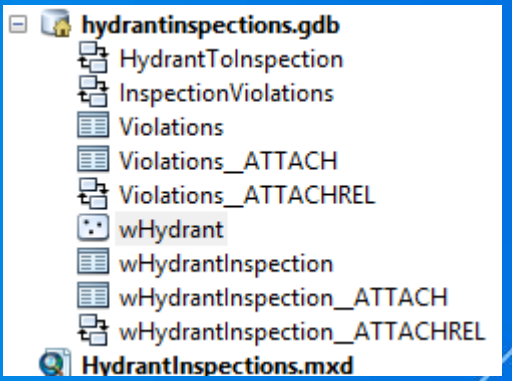
Bert Yagrich

Working with relationships

Did someone say inspections?

- Relationships are incredibly powerful for collecting information in the field
- Collector workflow is inspection oriented
- Requires ArcGIS Sever 10.3 or higher or AGO hosted services
  - If you are using server and archiving install http://support.esri.com/en/downloads/patches-servicepacks/view/productid/66/metaid/2196
- We support both feature and table based relationships
  - One to Many and One to One
  - The feature service supports three relationship levels deep
  - Collection of a new related record has to start with a feature, it cannot start directly from a table

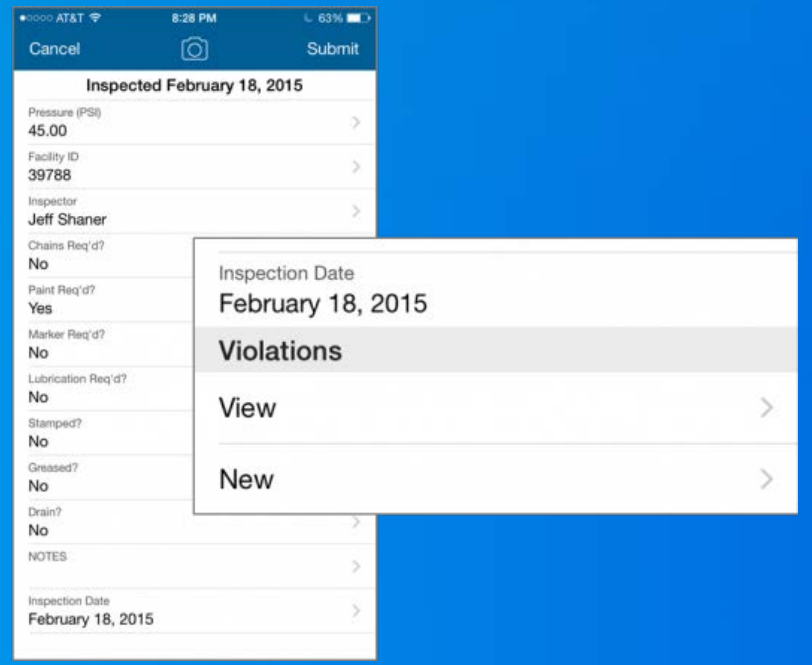




Working with relationships

Did someone say inspections?

- By default children features are not shown in the collect tool, to avoid orphaned records.
  - Advanced setting in Settings can override that for specific workflows
- Recent update of ArcGIS Online fixed a number of sync issues related to related records
- Strongly recommend using GUID based relationships
  - With user maintained relationships, records can be orphaned
- We do not support attributes fields directly on the relationship class



Relationships with

Bert Yagrich Msc PhD MD

Tips and Tricks

Avoiding pot holes along the way

- Maps in collector need an editable layer and to be shared through a group to show up in collector
- Do not use the same layer twice in a map if you intend to use it offline
- Definition filters are not supported offline
- Test your symbology outside before sending people to the field
- If you are using portal the format is https://<SERVERNAME>/INSTANCE
  - E.g. https://amazingportal.esri.com/arcgis

What’s next?

Filling in the missing features

- Collector for ArcGIS on Windows!
- More tools for planning field work (pre-planned)
  - Prepare your data in advance
  - Pre package multiple areas
  - Skip attachment downloads
- High accuracy collection
- Smarter data collection forms
  - Auto field population
  - Inherited attributes
- More templates

Questions ?

Please leave additional feedback by filling out our survey

1. Collector for ArcGIS: An Overview (604 / 1502) : Presenter (Ballroom 06 D)
2. Collector for ArcGIS: An Overview (604 / 1534) : Presenter (Ballroom 06 D)
3. Collector for ArcGIS: An Overview (604 / 2648) : Presenter (Room 03)

Collector4arcgis@esri.com

Understanding our world.