

Collector for ArcGIS

Out-of-the-Box Field Solution

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ArcGIS Online
Specialty



Esri Partner Conference
2016 Award Winner
Excellence in Web GIS Expansion



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Informal Poll

- How many operators are electronically collecting data in the field?
- How many operators are using ArcGIS Online or ArcGIS Server to deploy field maps?
- How many are using Collector for production data collection?

Collector is Part of ArcGIS Online

- Collector is an OOTB App for *iOS*, *Android* and *Windows*
- Consumes *Web Maps* Published in ArcGIS Online or Portal for ArcGIS
- Licensed via your *ArcGIS Online* Organizational Account



ArcGIS Online – GIS Evolving

The Landscape of GIS is Changing

- ArcGIS – A Complete GIS Platform
- Mapping, Analyzing, and Managing Geographic Information



ArcGIS Online – GIS Evolving

Accessible *Anywhere*



ArcGIS Online – GIS Evolving

Powered by *Services*



What it Means to Pipeline Operators

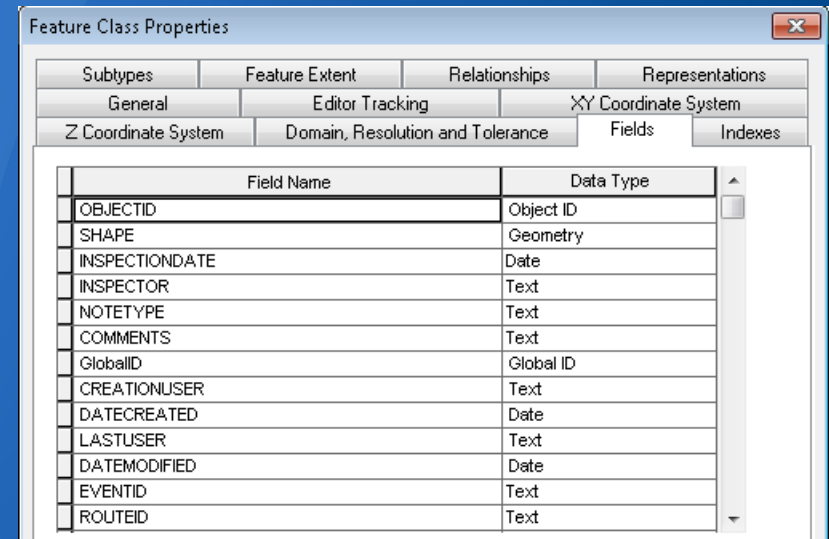
- Leverage your **existing investment** in:
 - ArcSDE
 - ArcGIS Server
- Configurable **out of the box solution** to collect/update asset attribution and supporting features
- Keep your On-Premise GIS Data **Secure** *Behind Your Firewall*
- Create New Field Workflows – **Quickly!**
- **Integrate/Automate/Empower** Field Data *in the Back Office*
- Provide **easy to use** tools for field office or remote data collection/verification

Publishing Feature Services for Collector

- Feature Service Options
 - **Operator-Hosted ArcGIS Server**
 - *Service Managed Internally*
 - *Data Stored on Operator-Owned Server*
 - *ArcSDE Feature Classes are EASY to publish*
 - **ArcGIS Online-Hosted**
 - *Cloud Hosted, Reduces Load on Your Servers*
 - *Can publish via Shapefile, CSV, or File Geodatabase*
 - *Need Plan to Transfer/Replicate Data to Back Office*

Publishing Feature Services for Collector

- Create New Feature Class
 - *Points, Lines, or Polygons*
- *Publish Existing Feature Class*



The screenshot shows the 'Feature Class Properties' dialog box with the 'Fields' tab selected. The table below represents the data shown in the dialog.

Field Name	Data Type
OBJECTID	Object ID
SHAPE	Geometry
INSPECTIONDATE	Date
INSPECTOR	Text
NOTETYPE	Text
COMMENTS	Text
GlobalID	Global ID
CREATIONUSER	Text
DATECREATED	Date
LASTUSER	Text
DATEMODIFIED	Date
EVENTID	Text
ROUTEID	Text

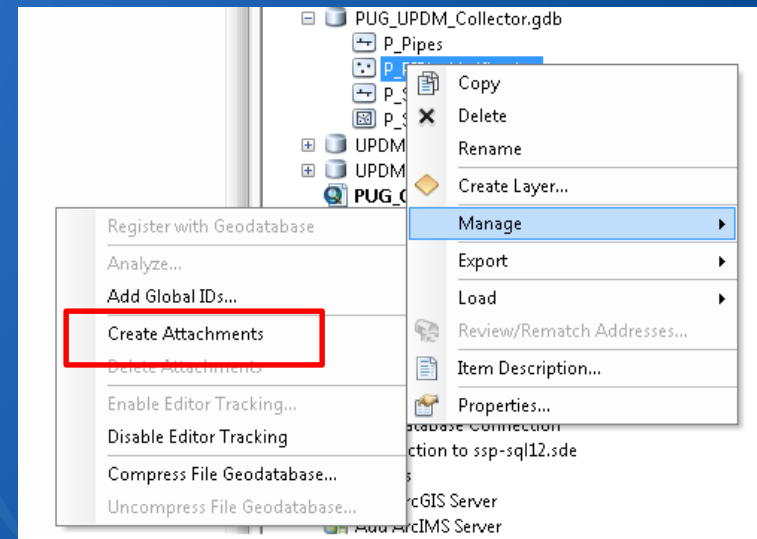
- Best Practices
 - Create a **dedicated dataset** to contain all editable classes
 - Use **Domains** wherever possible for easy field data entry
 - Apply **Defaults** to any applicable fields to minimize field interaction

Publishing Feature Services for Collector

➤ Enable Attachments

➤ Collector has Native Attachment Support

- *Creates related `_ATTACH` table*
- *Stores Attachments in DB*

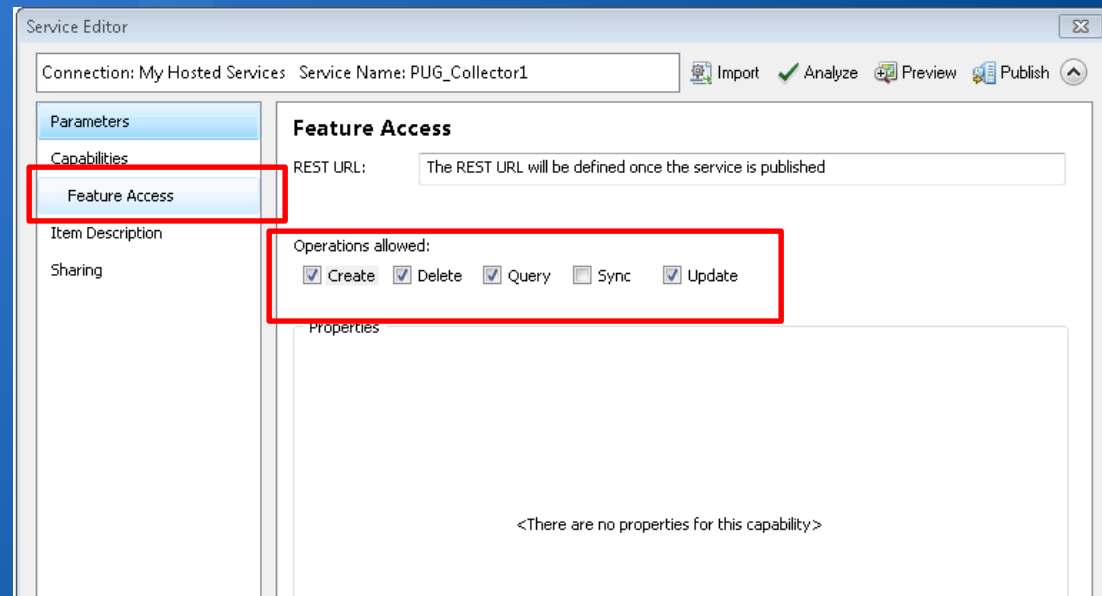


➤ Best Practices

- *Review and determine permanent storage options for back office photos*
 - *Default is in GDB but table space can get **HUGE***
 - *Options for custom workflow to export pics to a **share drive***

Publishing Feature Services for Collector

- Publish to ArcGIS Server
 - Editable **Feature** Service
 - *Enable Editing Access*

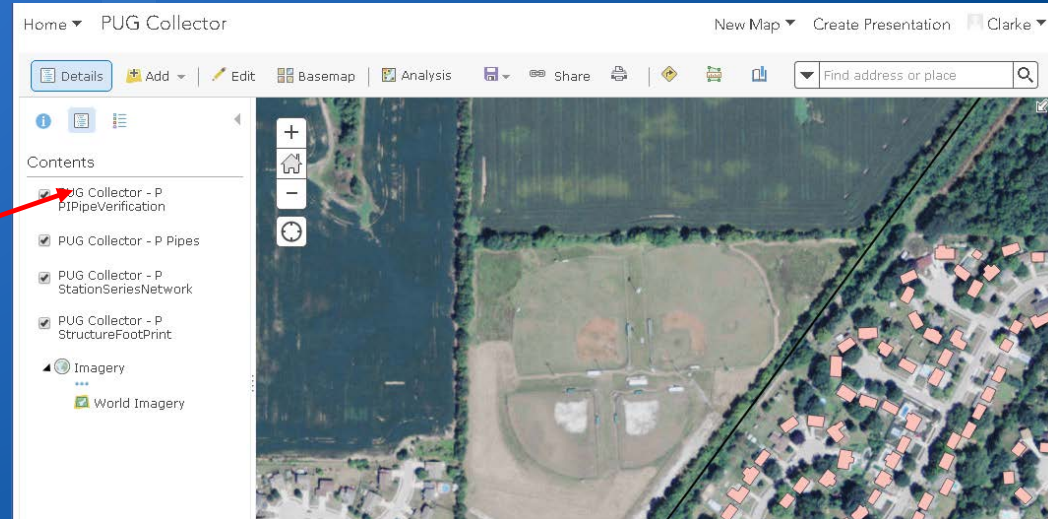
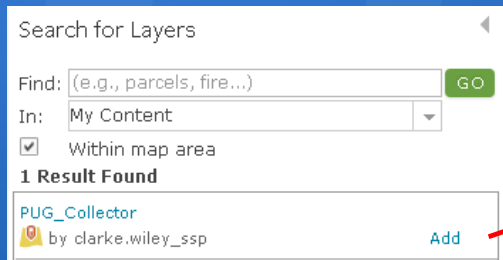


➤ Best Practices

- Secure your ArcGIS Server + Web Adaptor with **SSL** (https only)
- Secure your Feature Service with **ArcGIS Server Security**

Creating your AGOL WebMap

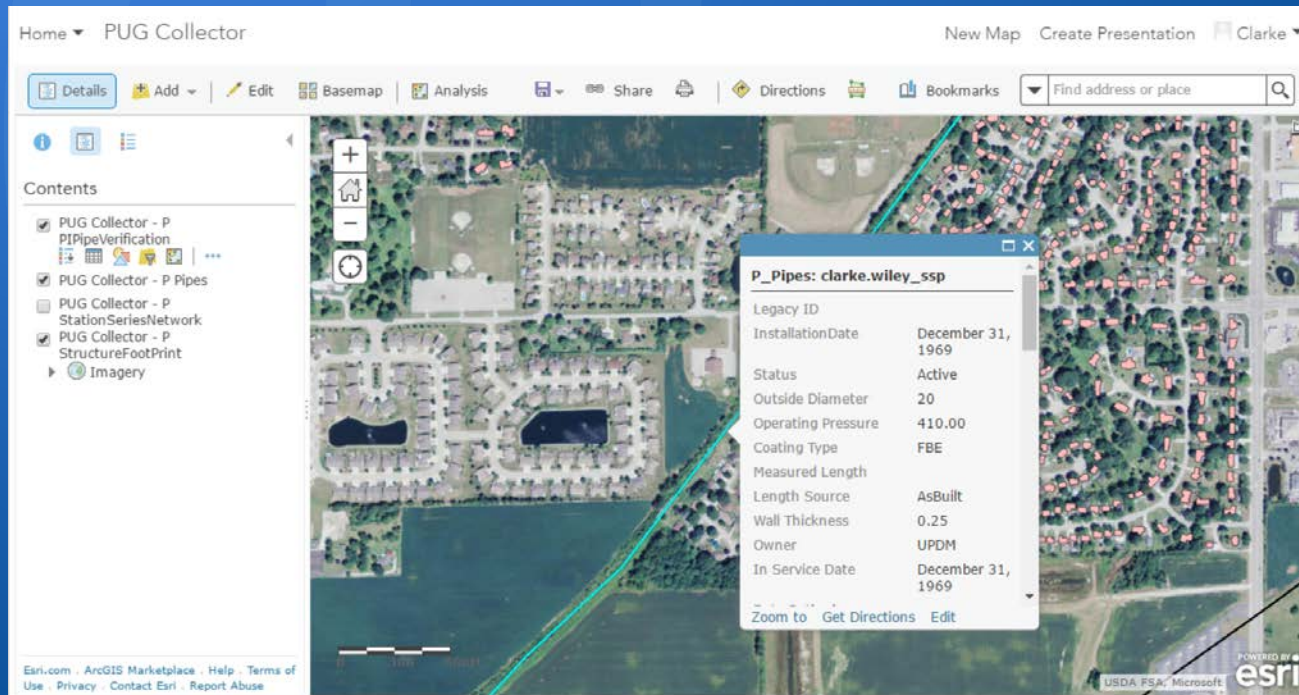
- Create a New WebMap
 - Add Backdrop Data Map Services
 - Add Feature Service from Org
 - Save & Share WebMap w/Groups



- Best Practices
 - **Test** adding collection points in the ArcGIS.com WebMap
 - **Fix** Issues on ArcGIS.com before testing Collector

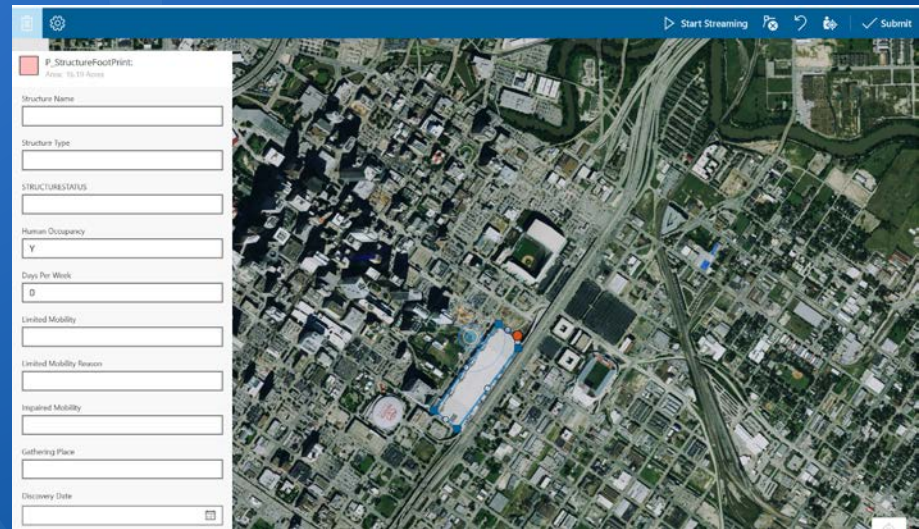
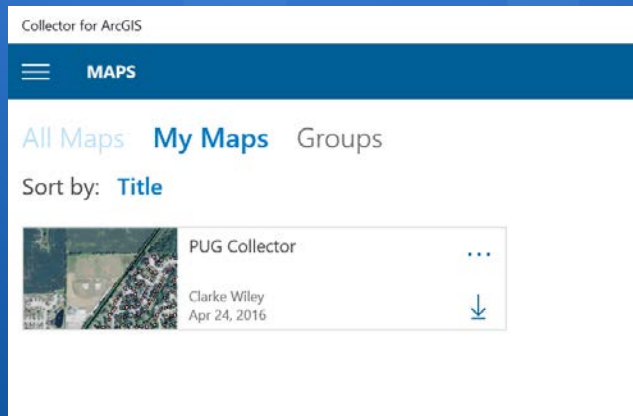
Consume WebMap in Collector

- Collected Data is Instantaneously Saved to Server / SDE
 - Available in ArcGIS.com, ArcMap, Dashboard, any AGOL App
 - Will include attachment data



Consume WebMap in Collector

- Log In to Organizational Account
 - Only Maps with Collectable Items are Available
 - Click the Map Button on Add Screen to place point on map
 - Simple, Easy Create and Editing Tools



Empower New Data Use Cases

- Collect Supporting Features for Pipeline Attribution & Analytics:
 - HCA/Class Structure Verification
 - Foreign Line Crossings
 - Encroachments
 - Right-of-Way
 - Field Office Collection & Inputs
 - Risk Inputs
 - Pipeline or Feature Verifications
- Easily deployed and used by 'non-GIS' users and contractors

Focus on the Collector Pattern

- **Expose** New Data **to** Field Operations
- **Collect** New Data **from** Field Operations
- **Empower** Your Operations with Integrated Workflows



- The **value** of the solution lies in using the **out-of-the-box** Collector application
 - Esri maintains the software and releases quarterly via auto online distribution
 - Keep your automation in the back office – increase ROI, simpler upgrade path

What About Disconnected Access?

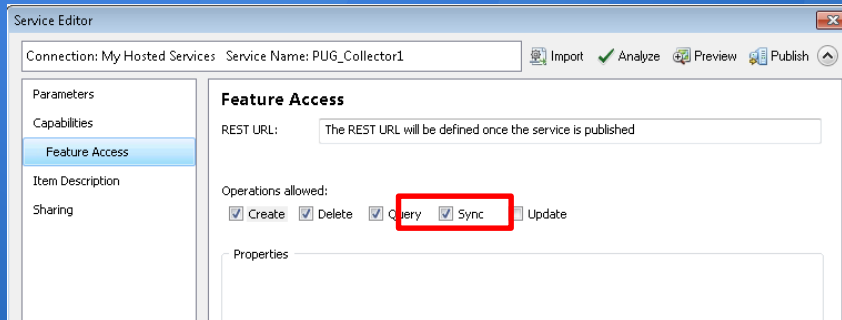
- Supports three map service types:
 - Feature Services w/Editing Operations
 - Tiled Map Services
 - Esri Basemap Services

Collector user can download map areas to their device

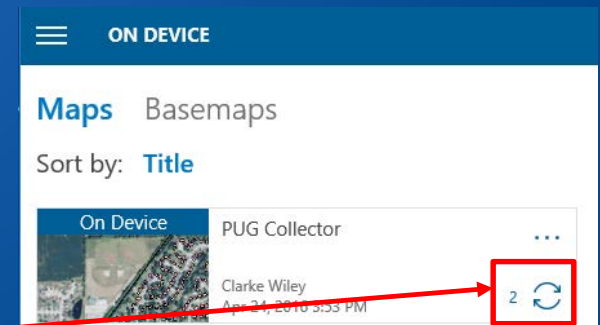
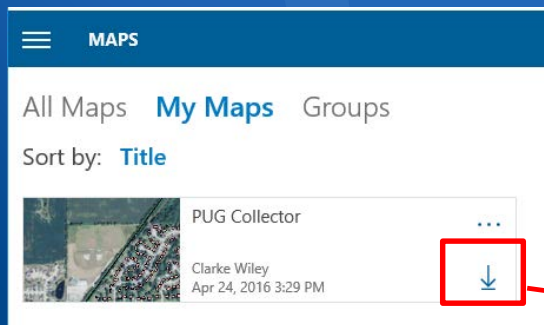


Disconnected - What Can We Do

- Enable Feature Services for Offline Access



- Allows for Map to be Downloaded to the Device & Edits to be Synched Back to Feature Service



Disconnected - What Can We Do

- Downloading the Map:
 - Defines a specified spatial extent (my work area for today)
 - Defines a zoom level for the cache
 - Caches the tiled basemap
 - Caches the Feature Service
 - Collects Features Locally Just as If Connected
- After Establishing Network Connectivity, Syncing the Map:
 - Passes the local features back into the Feature Service
 - Feature Service doesn't know about the offline collection

Demo – Field Data Collection

with Collector & ArcGIS Online

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