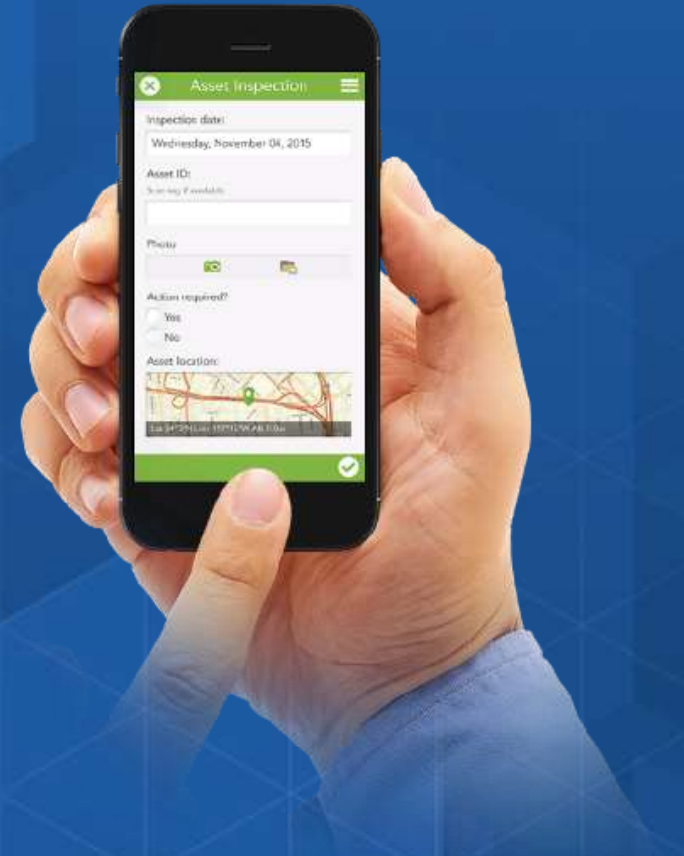


# Transportation Mobile Data Collection Esri User Group Survey123 for ArcGIS Update



Ismael Chivite [ichivite@esri.com](mailto:ichivite@esri.com)

Senior Product Manager, Esri



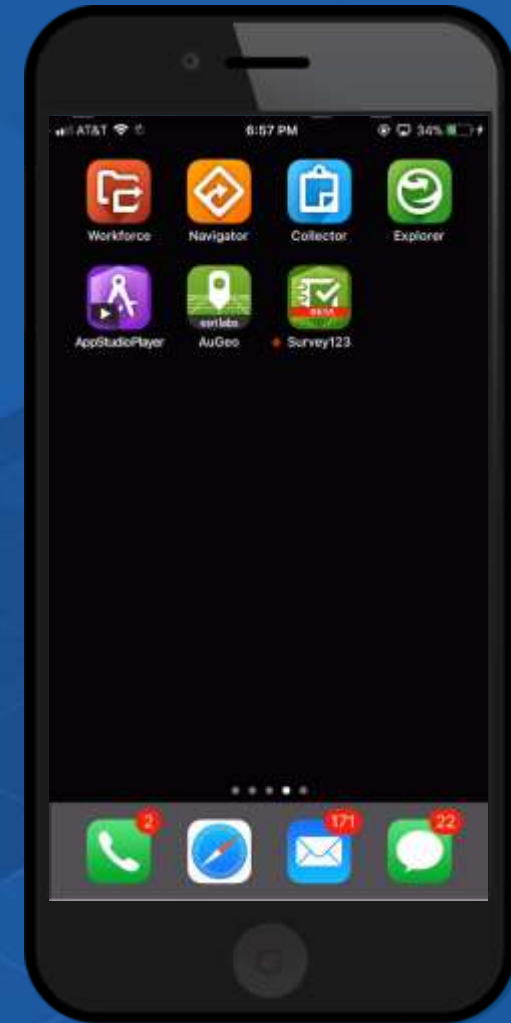
# Survey123 for ArcGIS

Smart forms for ArcGIS

Form Centric data collection experience

Web & Native / Desktop & Devices

Built on ArcGIS



# Agenda

- **A few things you may not know about smart forms on the web**
- **New smart form features**
- **Workflow automation with web hooks**
- **Road Map**
  - **Support for Lines and Polygons**
  - **High Accuracy Data Collection with GNSS receivers**
  - **Point to Point measurements with Spike**
  - **Custom Reports**
  - **Theme Grids**

# Web Forms

Survey123 smart forms for the web

- You can share your existing Survey123 surveys on the web
- Nothing to download. Right from your web browser
- Include a web form link in an e-mail
- Embed your survey in a web site
- Common use cases:
  - Public outreach
  - Internal forms

# A simple web form

## Complaint Form

ACME Public Utility District strives to provide its customers with excellent and professional service.

If you are not satisfied with the our customer service, please complete the following form. You will receive a response within two business days.

### Name

### Contact e-mail\*

### Contact phone

### Service Address\*

# A web form in action (linked from a web site)

The screenshot shows a web browser window with the URL <https://www.frederickcountymd.gov/7651/Flooding-Event->. The page header features the Frederick County Government logo and the tagline "Rich History, Bright Future". The navigation menu includes "Government", "Departments", "Services", "Community", "Business", and "How Do I".

The main content area is titled "May 2018 Flooding Event" and contains the following text:

Home > Community > READY Frederick County > Recover > Flooding Event Recovery

## May 2018 Flooding Event

Heavy rains and flooding caused widespread damage in Frederick County on May 15 and May 16. In response, County Executive Jan Gardner issued a local [State of Emergency](#), which authorized County agencies to activate their emergency plans. The local State of Emergency was [lifted](#) on May 23. Issuing a local State of Emergency may allow the County to recover some costs through state and federal programs.

To that end, the Frederick County Division of Emergency Management is collecting information from County residents and businesses and non-profit organizations on damage and losses suffered as a result of the flooding. The information provided will be compiled into a Preliminary Damage Assessment which will be used to help the Federal Emergency Management Agency determine if the county is eligible for any types of federal disaster assistance.

On the left side of the page, there is a blue sidebar with a list of links:

- [Flooding Event Recovery](#)
- [Residential Damage Assessment Form](#)
- [Business/Non-Profit Damage Assessment Form](#)
- [Press Conference: Impact of Heavy Rains & Flooding](#)

At the bottom of the sidebar, there is a logo for "Parks & Recreation".

At the bottom right of the page, there is a button that says "Enable Google Translate".

# Embedded public web forms

New since version 3.2 (January 2019)

I WANT TO... CUSTOMER SERVICE DEPARTMENTS ABOUT US

+ Manage Your Account  
+ Billing Options  
+ Ways to Save  
- Forms  
Customer Service Forms  
New Construction  
+ Additional Services  
Water Usage

Customer Service » Forms »

## Complaint Form

ACME Public Utility District strives to provide its customers with excellent and professional service.

If you are not satisfied with the our customer service, please complete the following form. You will receive a response within two business days.

**Name**

**Contact e-mail\***

# Embedded web forms

New since version 3.2 (January 2019)

The screenshot shows the 'Complaint Form' configuration page in Survey123. The top navigation bar includes 'Overview', 'Design', 'Collaborate', 'Analyze', 'Data', and 'Settings'. On the left, a sidebar contains 'Submitter', 'Viewer', and 'Group Settings'. The main content area is titled 'Choose who can submit data to this survey:' and includes several options: 'Everyone (Public)' (checked), 'Members of my organization (Survey123 > Ninja Temple)' (unchecked), and 'Following Groups:' (unchecked). Below these are three group selection boxes for 'Asset Inspection', 'Postural/Classrooming Survey123 Exercise', and 'Public Safety Training', each with a 'Details' link. A large orange arrow points to the 'Embed' tab in the 'Link' section. Below the 'Embed' tab, there is a 'Copy and paste HTML to embed in website.' section with a 'Copy' button. The HTML code is as follows:

```
<style>.embed-container {position: relative; height: 0; padding-bottom:80%; max-width: 100%;} .embed-container iframe, .embed-container object, .embed-container iframe {position: absolute; top: 0; left: 0; width: 100%; height: 100%;} small {position: absolute; z-index: 40; bottom: 0; margin-bottom: -15px;}</style><div class="embed-container"><iframe name="survey123webform" width="500" height="400" frameborder="0" marginheight="0" marginwidth="0" title="Complaint Form" src="//survey123qa.arcgis.com/share/25687f2c4f634a719dc90f9e68632fe47?hide=navbar,header,footer,theme"></iframe></div><script>var survey123webform = document.getElementsByName['survey123webform'][0];window.addEventListener("message",e=>{if(e.data){var
```

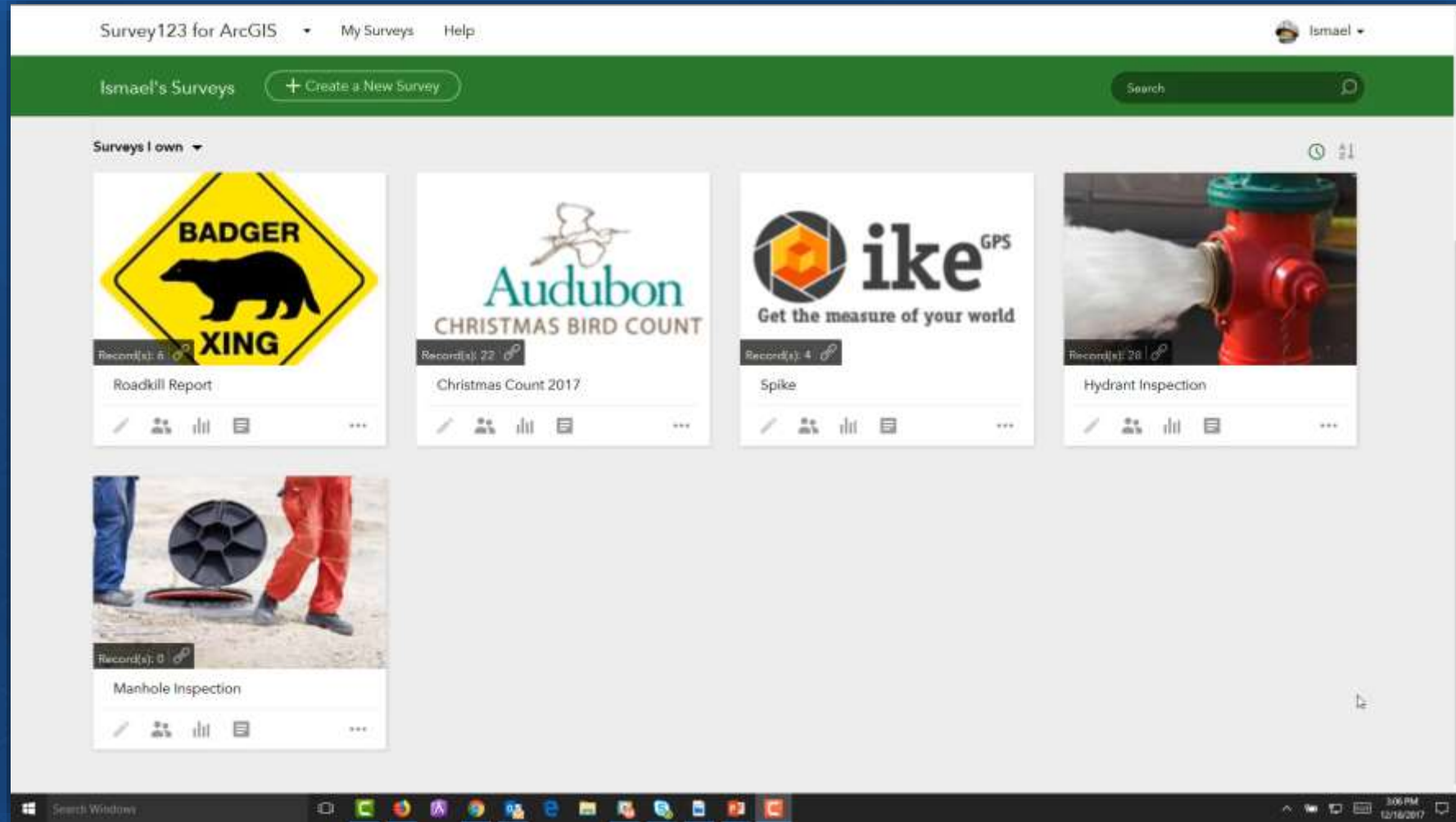
Below the HTML code is the 'Embed options' section with the following checked options:

- Hide options bar (sign in info, multiple language options, etc.)
- Hide survey header
- Hide survey description
- Hide survey footer
- Ignore theme

To the right of the 'Embed options' is a preview window showing a simplified version of the complaint form with input fields and a submit button.



# Survey123 Web Designer



Easily create powerful smart forms for the web or the Survey123 field app

# Survey123 Web Designer and Survey123 Connect

- **Two different ways to create surveys:**

- **Web Designer:**

- Easy. Drag & Drop
- Ideal for web forms, but you can ALSO use your web designer forms in the field app.
- Plenty for most people

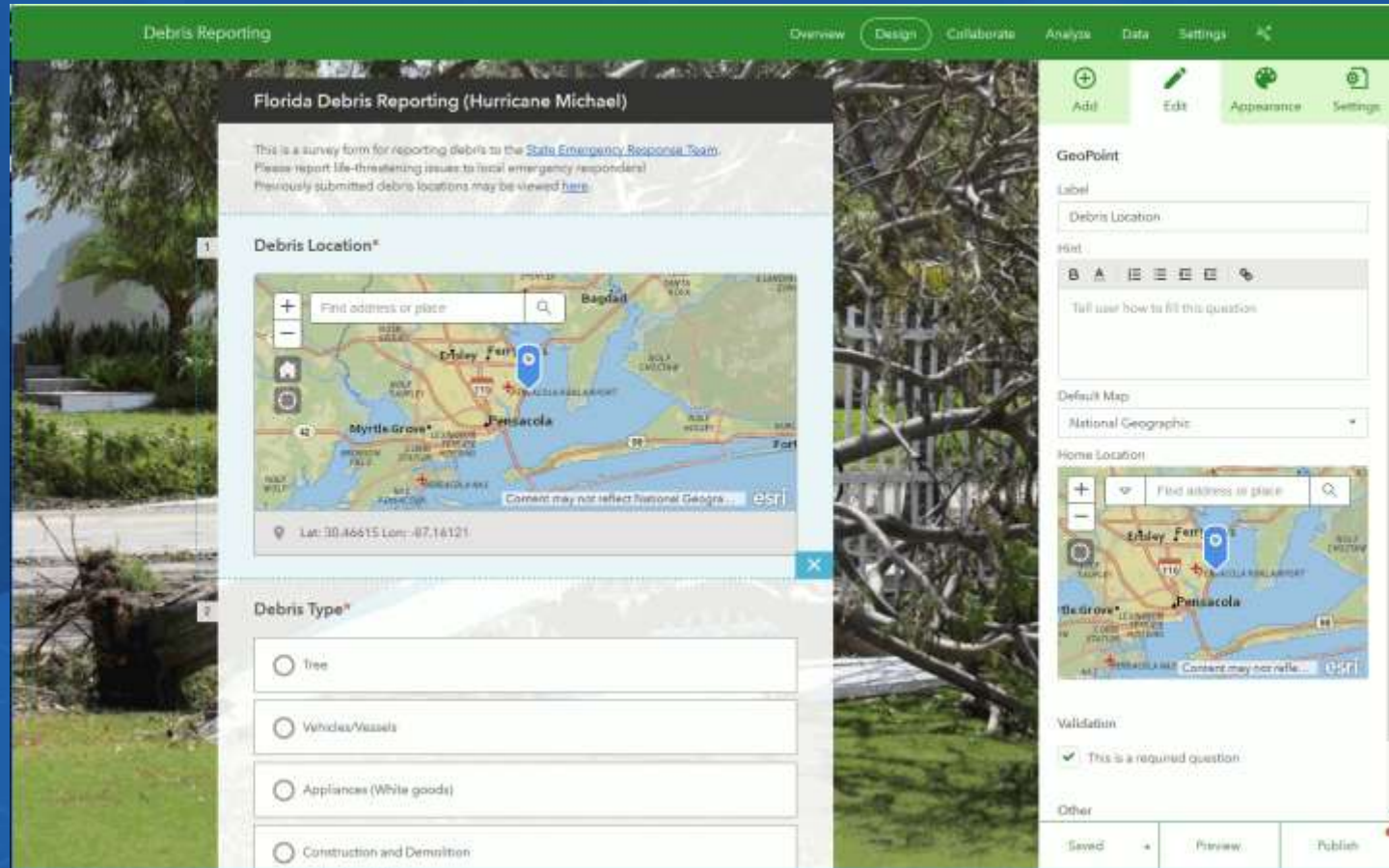
- **Survey123 Connect:**

- Requires XLSForm skills
- More control (Calculations, Repeats...)
- Ideal if you plan to use the form in the Survey123 field app, but your Connect forms ALSO work on the web

- **Tip: Do not mix them. If you start a particular survey in Designer, keep it there.**

# Web form custom themes in Web Designer

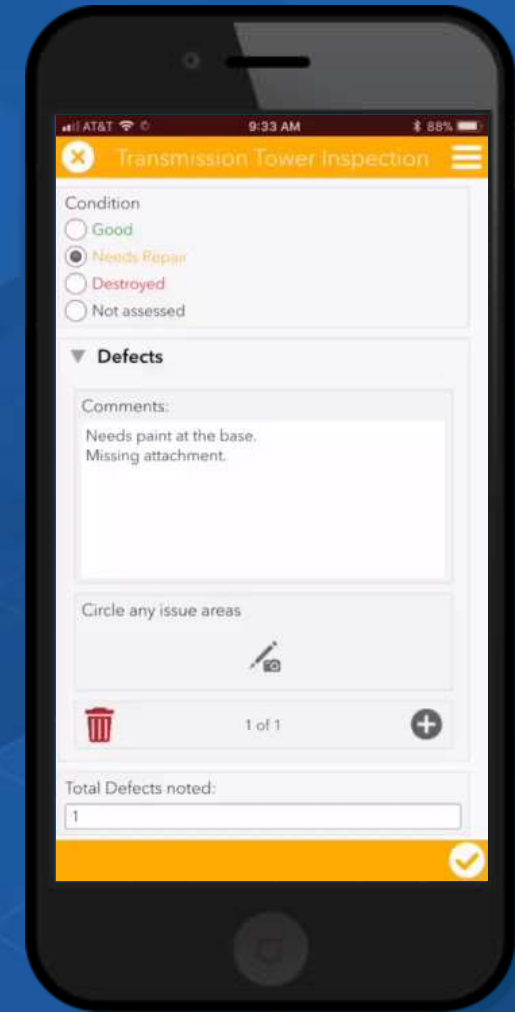
New since version 3.1 (December 2019)



# Agenda

- A few things you may not know about smart forms on the web
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  - Theme Grids

# Photo and Diagram Sketching




# Dynamic Labels

Water Violation Report

**Date & Time Observed:**

2018-09-18 16:23

**Location**



City of Redlands, City of Riverside, County of Riverside, San Bernardino County, Bureau

Powered by Esri

Lat: 34.05532 Lon: -117.18249

Altitude (m):

**Type of Violation**

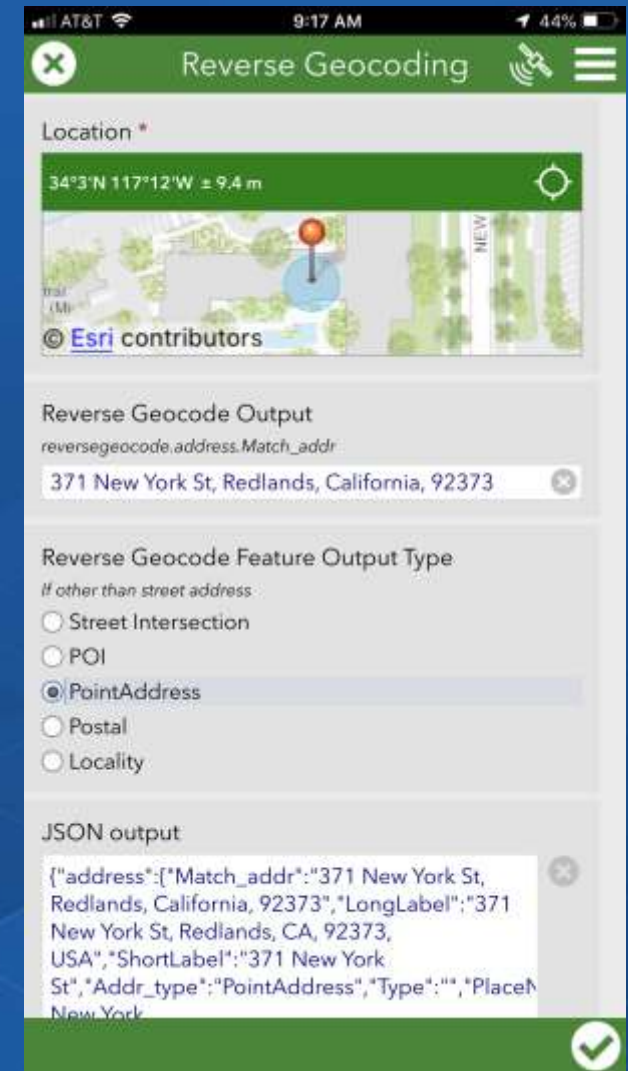
-Please Select-

**Name of Offender**


**Notes:**

Optional

# Reverse geocoding



# Pages



## Special-Use Application for Recreation Events

(Ref.: 36 CFR 251)

A [special-use authorization](#) is a legal document such as a permit, term permit, lease, or easement, which allows occupancy, use, rights, or privileges of agency land. The authorization is granted for a specific use of the land for a specific period of time.

Complete and submit this online form to request a Spatial-Use authorization. You will be contacted by Department of Agriculture personnel.

Next

Page 1 of 5

Powered by Survey123 for ArcGIS



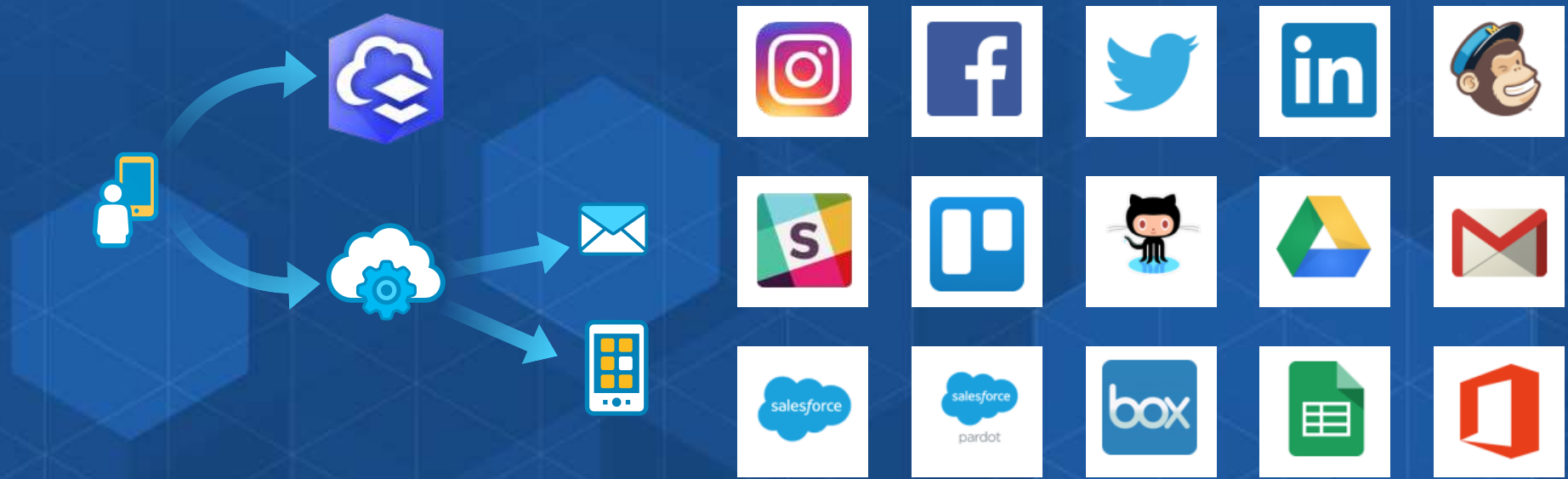
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# Workflow Automation

- Office 365, SalesForce, Google (Gmail, Drive, Sheets...), Box, Social Media...
- No code required, out the box, instant.





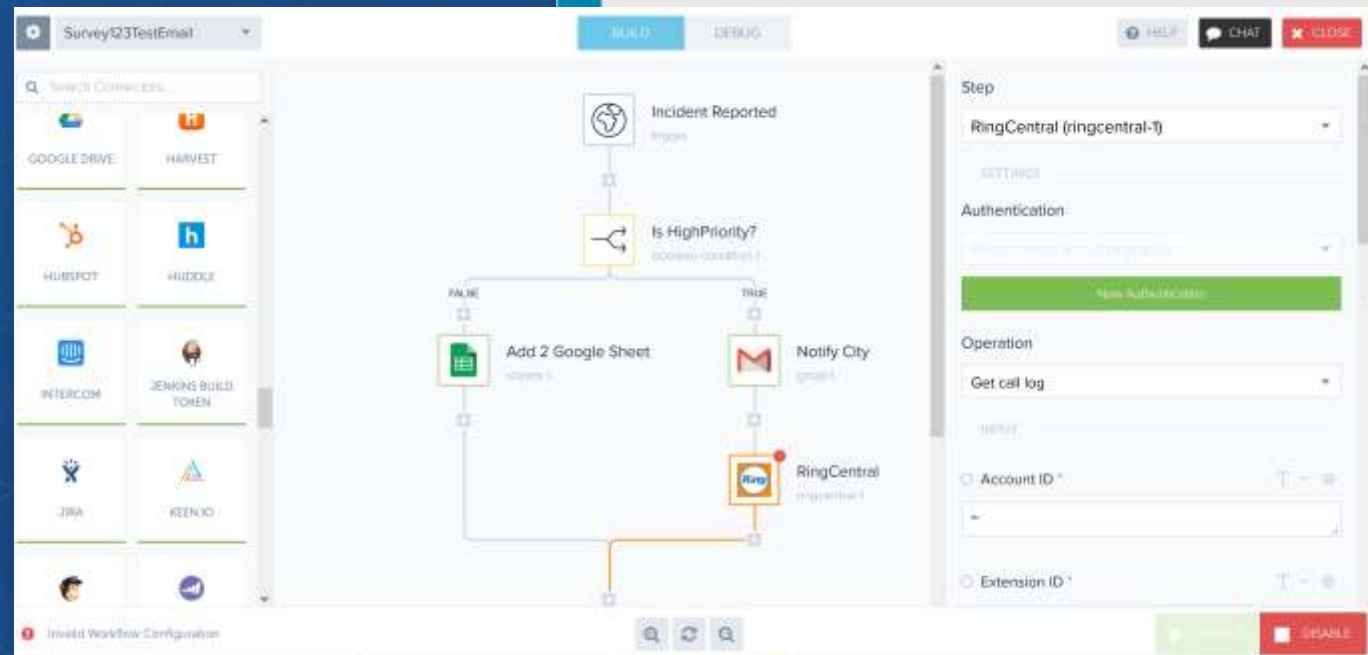
# Workflow Automation





# Workflow Automation

- Microsoft Flow, Zapier, Tray.IO...
- Visually build workflows
  - Out the box connectors
  - Conditional logic, iterations...
  - No coding required





## To Learn More...

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- <https://community.esri.com/groups/survey123/blog/2018/07/19/automating-workflows-with-survey123-and-microsoft-flow>
- <http://doc.arcgis.com/en/survey123/desktop/create-surveys/webhooks.htm>

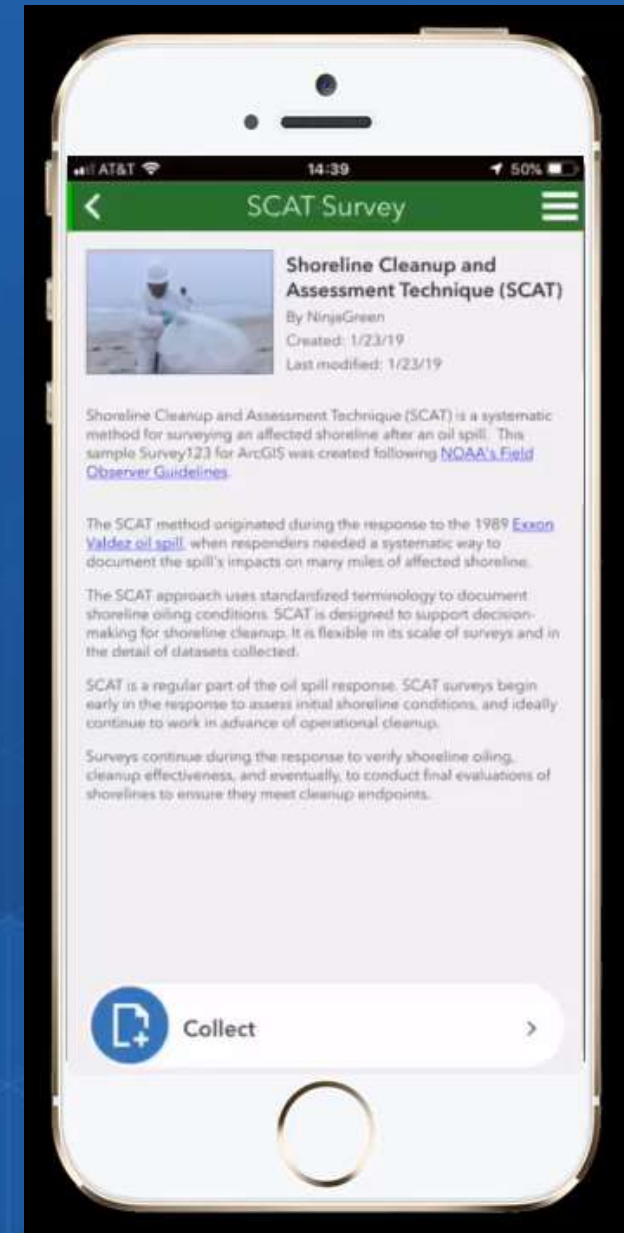
# Agenda

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# Lines and Polygons

Coming up in 3.4 (May 2019)

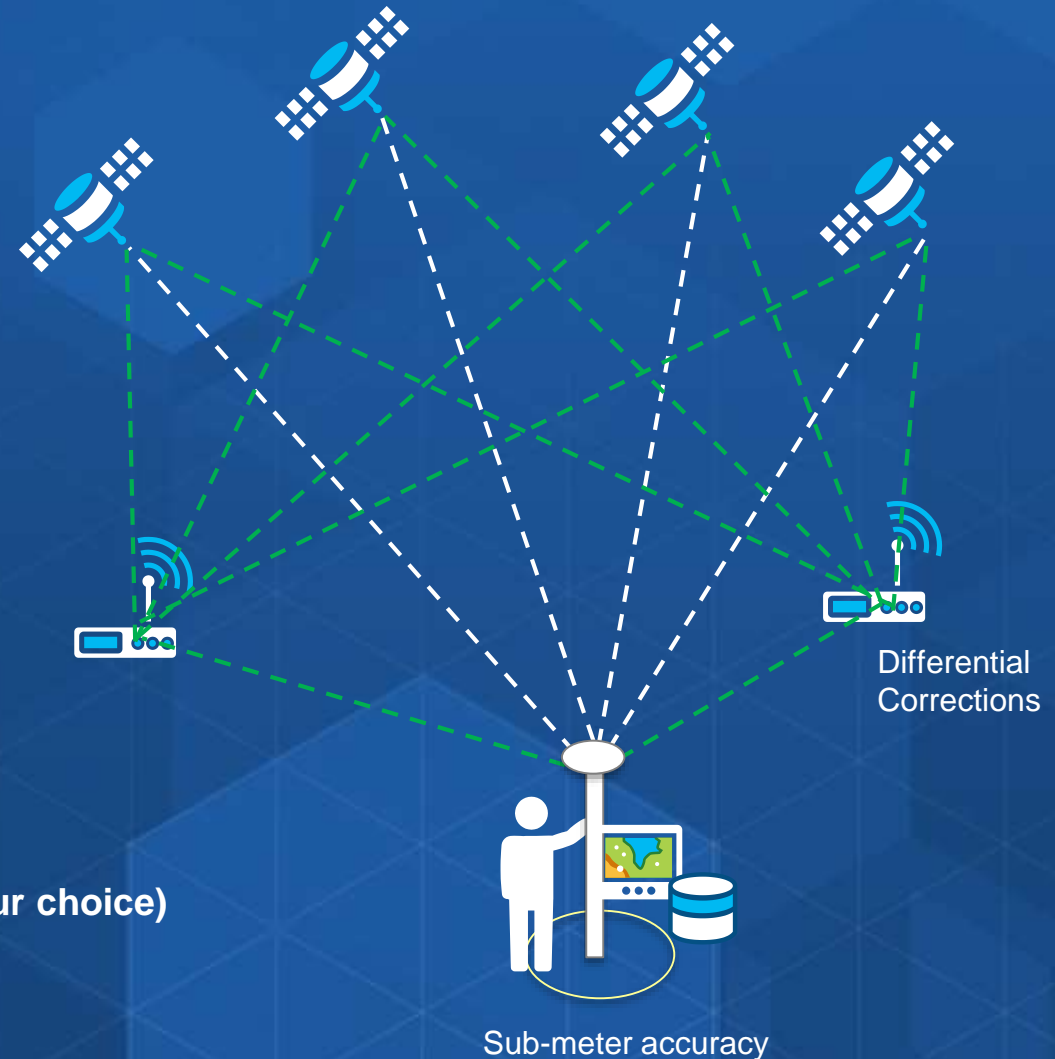
- Ready for testing in Early Adopter Program
- New XLSForm question types:
  - geotrace
  - geoshape
- Enhanced pulldata functions:
  - Get Area
  - Get Perimeter
- Support coming to the Survey123 Field App and Connect at 3.4
- Support in web designer coming in 3.5 or 3.6



# Direct External GNSS Support

Coming up in 3.3 (March 2019)

- Ready for testing in Early Adopter Program
- Tested devices:
  - EOS Arrow Series
  - Bad Elf
  - Geneq SxBlue
  - Leica Zeno GG04 plus
  - Trimble R1 R2, R8s, R10 (Android, Windows only)
- Capabilities
  - Get locations from external sensor
  - Use GPS metadata :
    - to build runtime QA/QC location data validation rules
    - to store it as a GIS feature attribute (in the table columns of your choice)





# Spike Point to Point Measurements

Coming up in 3.3 (March 2019)

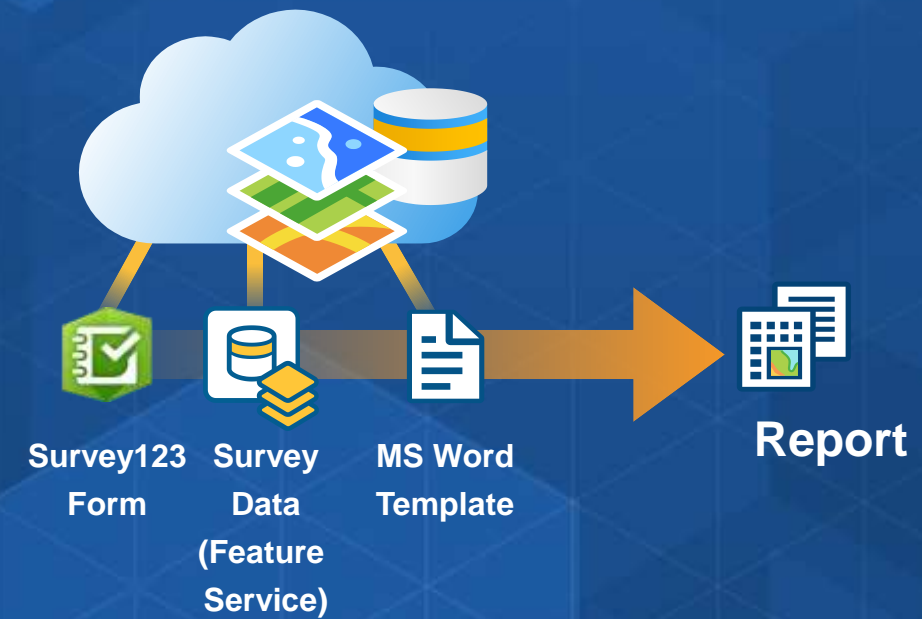
- **Laser measurement tool integrated with Survey123 forms**
- **Photo Measurements:**
  - Measure distances and areas by simply drawing on a photo
  - Released March 2018
- **Point to Point Measurements**
  - Measure distances and slopes between objects in two photos
  - Coming up in 3.3





# Custom Reports

- **Create High Quality Reports for your Survey123 data**
  1. **Design Report Template in Microsoft Word**
  2. **Upload to Survey123**
  3. **Generate ad-hoc reports and in bulk**
- **Automate reports through REST and Python API**
- **Release in 3.5 (UC)**
- **Each report generated will cost 2.5 credits**





# Custom Reports

survey123.arcgis.com/surveys/3cf865b2569432d90bcc5a95cd964f/data

Survey123 for ArcGIS My Surveys Help Survey123

Manhole\_Inspection Overview Design Collaborate Analyze Data

12/18/17 - 12/18/17 Report (Beta) Export Open in Map Viewer Show individual response

Manhole\_Inspection (Features: 1, Selected: 1)

Inspection Date & Time	Weather	Facility ID	Location Description	Cover Type	Specify other.	Material	Manhole Depth	Diameter
Dec 18, 2017	☀	0055874	380 New York Street, Redlands CA, 92373	Large - Water Tight		Cast Iron	20	48

Manhole\_Inspection

Submitted By: survey123demo  
Submitted Time: 12/18/17 11:03 AM

Inspection Date & Time  
12/18/17 10:48 AM

Weather  
☀

Facility ID  
0055874

GPS Location  
Lat: 34.058 Lon: -117.196

# Theme Grid Layouts

Coming up in late 2019

### Grid Theme Tutorial

▼ One simple row with 4 equal-sized questions cells (default group width = w4)

Enter some text * This question should be 1 column wide so it gets appearance: w1	Enter a number * This question should be 1 column wide so it gets appearance: w1	Enter a decimal number * This question should be 1 column wide so it gets appearance: w1	Enter a date * This question should be 1 column wide so it gets appearance: w1
--	---	---	---

▼ One simple row with 2 small questions and 1 larger (default group width = w4) \*

Enter some text * This question should be 1 column wide so it gets appearance: w1	Enter a number * This question should be 1 column wide so it gets appearance: w1	Enter a bit more text. This question should be 2 columns wide so it gets appearance: w2
--	---	--

▼ One simple row with 7 columns (group width = w7) \*

Enter some text * This question should be 2 columns wide so it gets appearance: w2	Enter a number * This question should be 1 column wide so it gets appearance: w1	Enter a bit more text * This question should be 1 column wide so it gets appearance: w1	Enter a number * This question should be 3 columns wide so it gets appearance: w3
---	---	--	--

▼ Combining appearance attributes (group width = w3)

Choose one * to take up 2 columns we need appearance=w2, to display the choices horizontally we need appearance=horizontal. So we add both: "w2 horizontal" or "horizontal w2" <input type="radio"/> option 1 <input type="radio"/> option 2 <input type="radio"/> option 3 <input type="radio"/> option 4 <input type="radio"/> option 5 <input type="radio"/> option 6 <input type="radio"/> option 7 <input type="radio"/> option 8	Enter a number * This question should be 1 column wide so it gets appearance: w1
---	---

▼ Multiple rows... all done automatically (group width = w4)

If a question doesn't fit it will be placed on the next row.  
This note should be full width so it gets appearance: w4

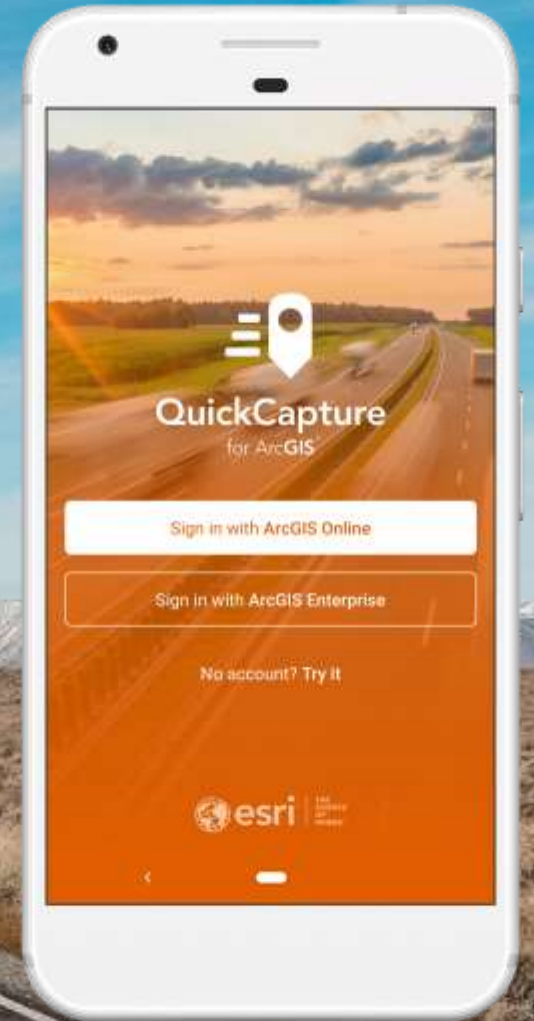
Enter some text This question should be 2 columns wide so it gets appearance: w2	Enter a number This question should be 2 columns wide so it gets appearance: w2
Enter more text This question should be 3 columns wide so it gets appearance: w3	Enter a number This question should be 1 column wide so it gets appearance: w1

▼ Advanced grid behaviour: Stretching rows to full width. Always.

This behaviour makes sure forms almost always look good, even if the w-values aren't completely adding up.  
This note is full width even though it has appearance: w3, because the next question won't fit on the same row AND a row is always displayed full width.

Transportation Mobile Data Collection Esri User Group

# ArcGIS QuickCapture Update



Ismael Chivite [ichivite@esri.com](mailto:ichivite@esri.com)

Senior Product Manager, Esri

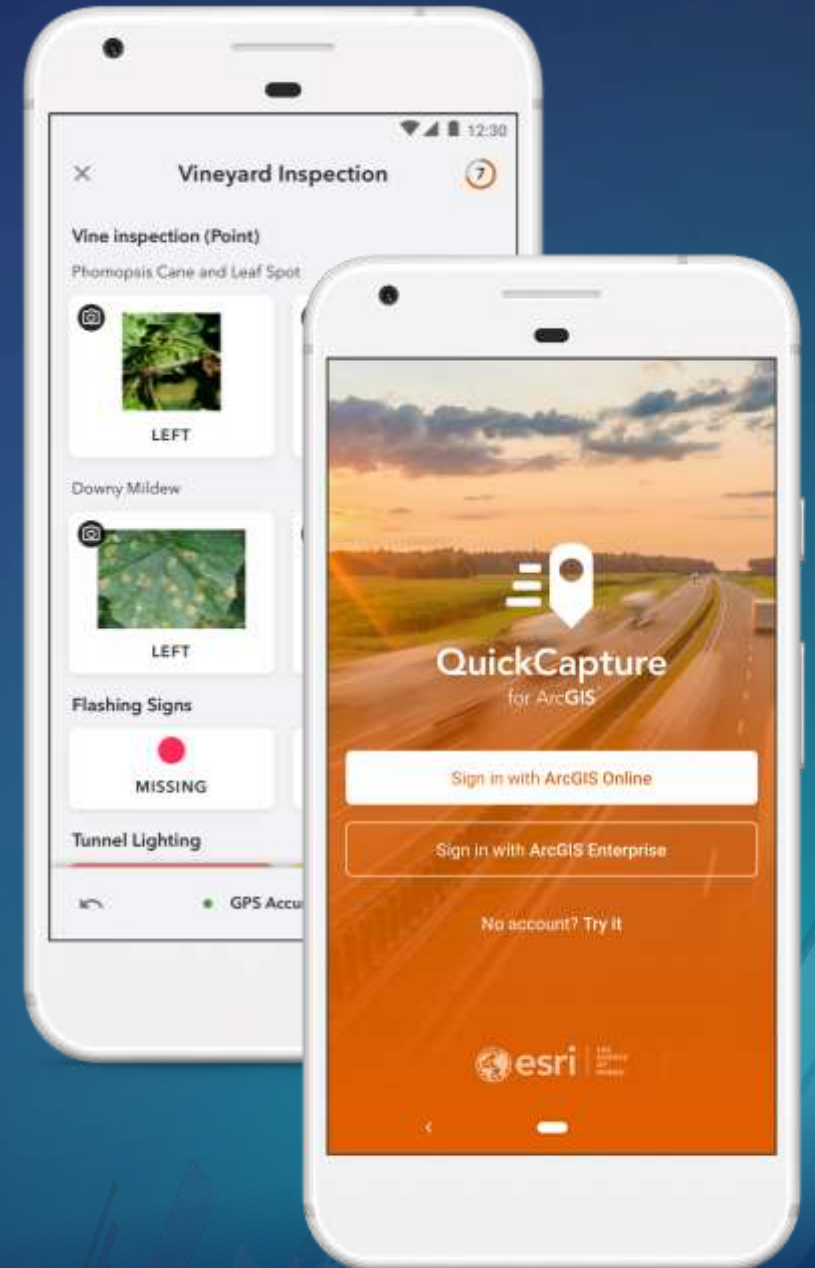
# ArcGIS QuickCapture

*The Rapid Data Collection App*

Simplest way to capture georeferenced data

Ideal for at-speed data collection workflows

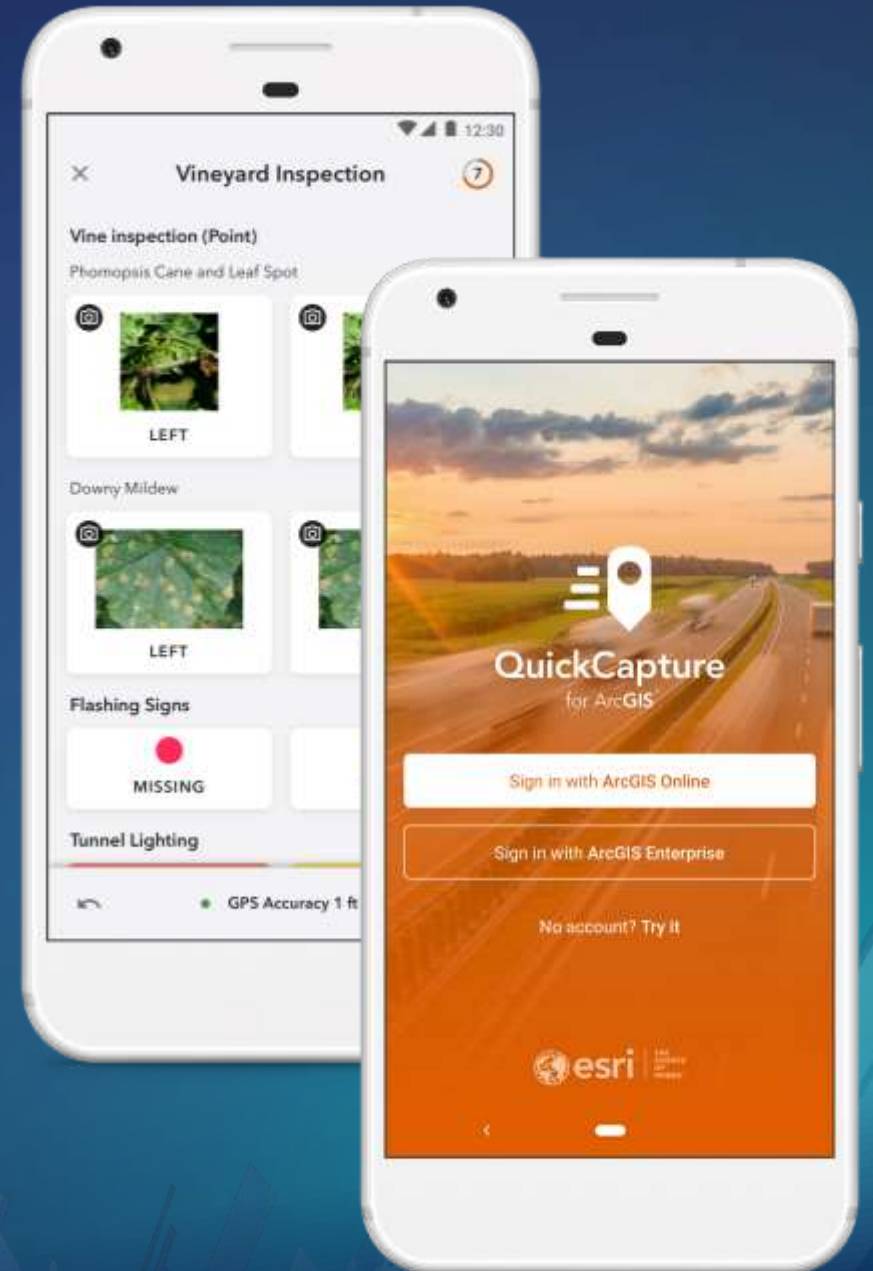
Now available in Esri Labs. Release in 2019



# ArcGIS QuickCapture

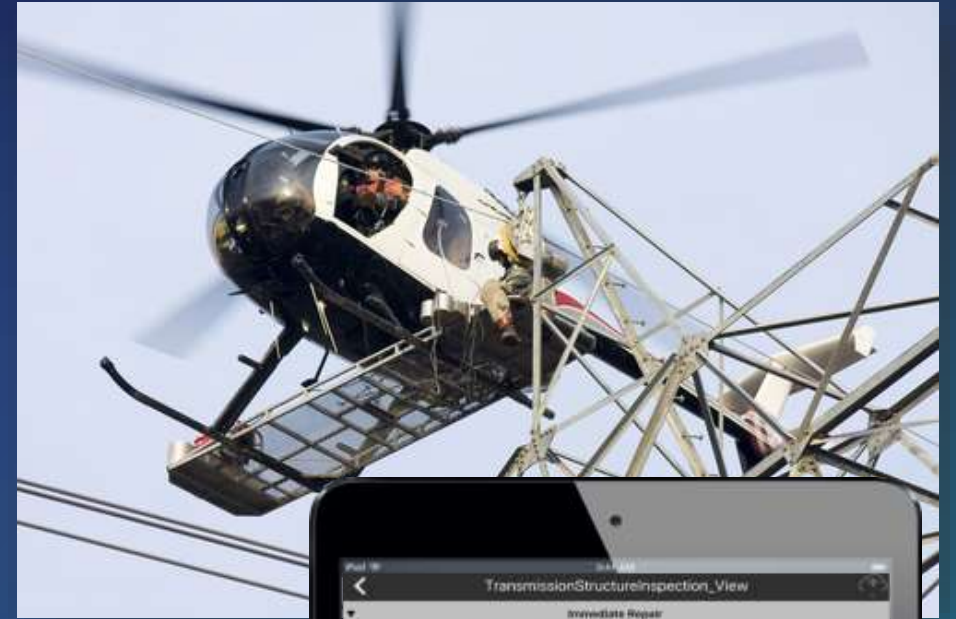
*The Rapid Data Collection App*

# DEMO



# Aerial Surveys

Aerial Line Patrols and Aerial Wildlife Surveys



Report observations from a helicopter or plane

Configurable BIG button user experience

Works offline. Sync back when online.





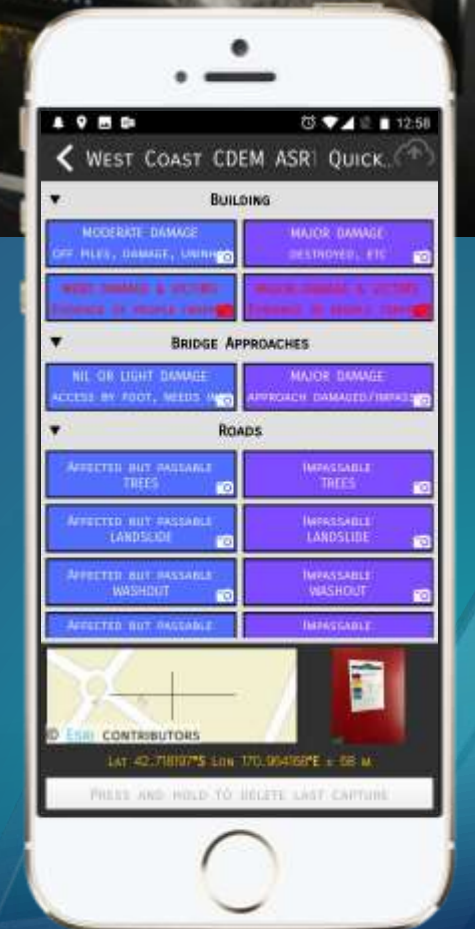
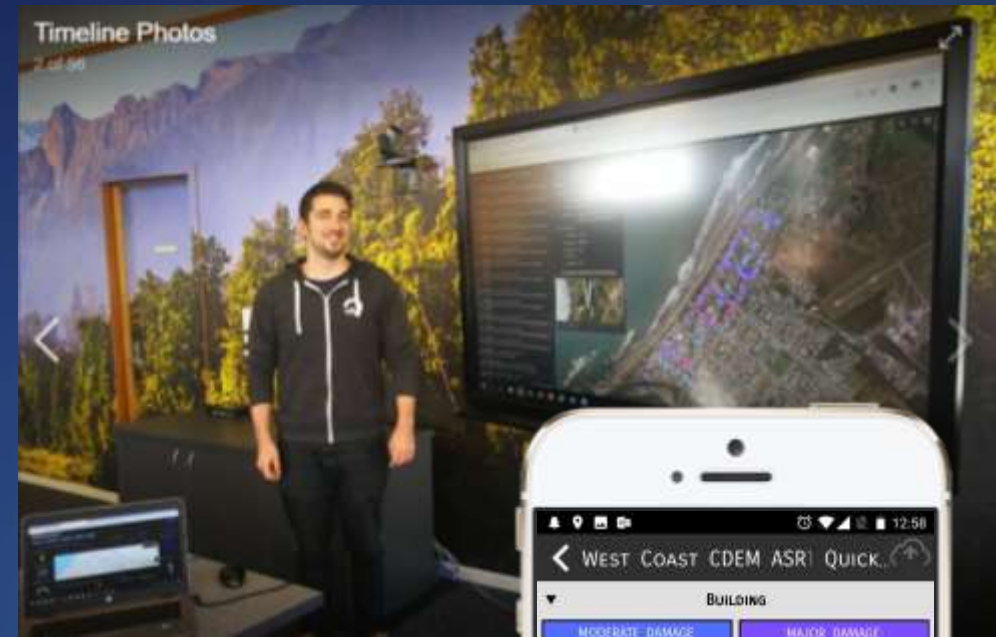
# Emergency Response

Windshield Damage Assessments and Recon work

Effective data capture tool for first responders

Minimum training

Robust and reliable



# Agriculture

Florida Department of Agriculture. Oriental Fruit Fly Cooperative Program



Over 13K observations captured

Simplified / Streamlined data collection

Enabled Real-Time decision making



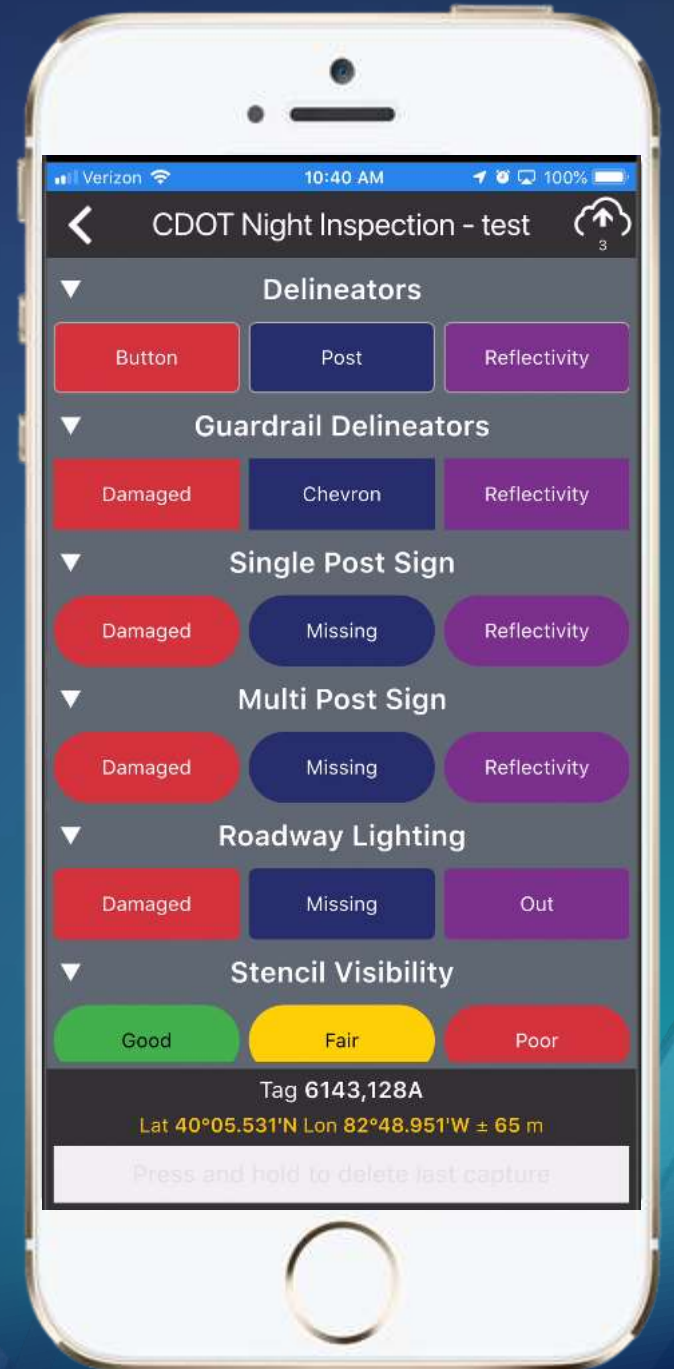
# Transportation

Night Retro-reflectivity Inspections and Road Asset Inventories

Ideal user experience for at-speed data capture

Capture point and line observations

Replace obsolete paper-based workflows



# ArcGIS QuickCapture Features

Designed for Rapid Data Collection

- **Big Button interface**
  - Location, Photo and Type with a single tap
  - Audio feedback for user validation
  - Direction, Speed, Username...
- Works offline and online
- ArcGIS Online and ArcGIS Enterprise
- Data auto-sync
- Built-in Data Recovery Tools
- Points, Lines and Polygons (nested data collection is supported)
- Background mode. Minimal Battery Drain



# Schedule

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- **Now in Esri Labs**
- **Beta in May 2019**
  - **QuickCapture Designer**
  - **Revised UI**
- **General release at UC 2019**

