



Survey123 for ArcGIS: An Introduction

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@GIS_Bandit

**GIS
INSPIRING
WHAT'S
NEXT**

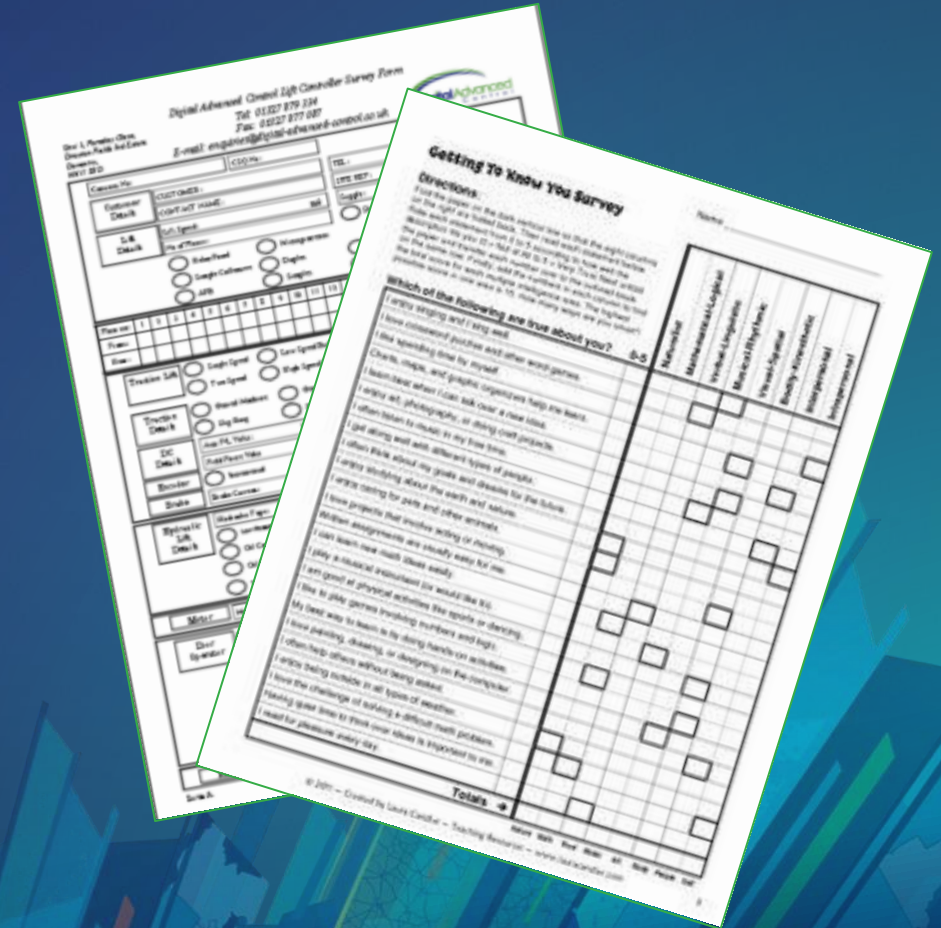
Agenda

- Product overview
- Authoring surveys
- Collecting data
- Examine survey results
- Summary

Forms

A printed or typed document with blank spaces for insertion of required information

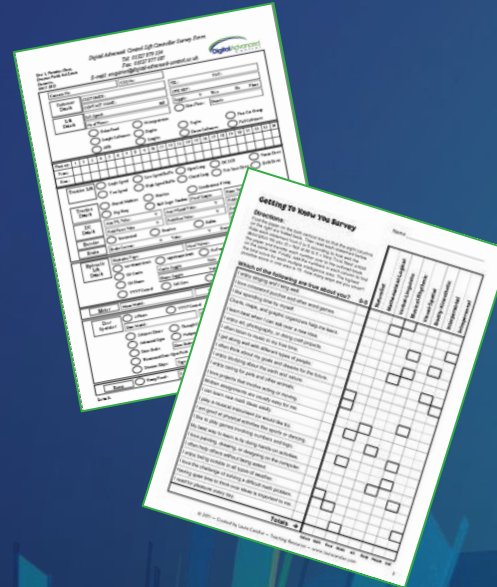
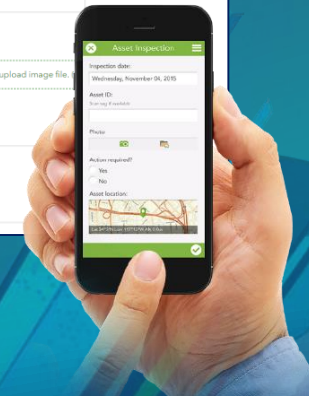
- Universally used
 - Utilities (Water, Electric, Telco, Gas)
 - Transportation
 - Government
 - Humanitarian, Non-Profit, Conservation
 - Census
 - Health
 - Emergency Management
 - Agriculture...



Survey123 for ArcGIS



- Form-centric data collection solution
- Leverages smart forms
- Web browser-based solution
 - Also supports mobile devices
- Integrated with ArcGIS Online
 - Available with ArcGIS Enterprise

A screenshot of the 'Graffiti Survey' web form. It includes fields for 'Graffiti reported on:' (2018-04-23), 'Gang related graffiti?' (Yes/No), 'Offensive content?' (Yes/No), a 'Photo:' section with an upload link, and a 'Comments' section. A hand is holding a smartphone displaying the mobile version of the survey.

Why Smart Forms in ArcGIS?

- Reduce errors
 - During data capture
 - Transcribing data from paper to digital
- Boost field data capture productivity
 - Precompute responses
 - Associate photos with alphanumeric data
- Data from the field to the office in real-time
- All data captured is georeferenced



Many Customers – Many Use Cases



World Health
Organization



American
Red Cross



Direct Relief®



San Francisco
Water
Power
Sewer

Services of the San Francisco Public Utilities Commission





1- Ask Questions

(Design & Publish)



2- Get Answers

(Capture Data)



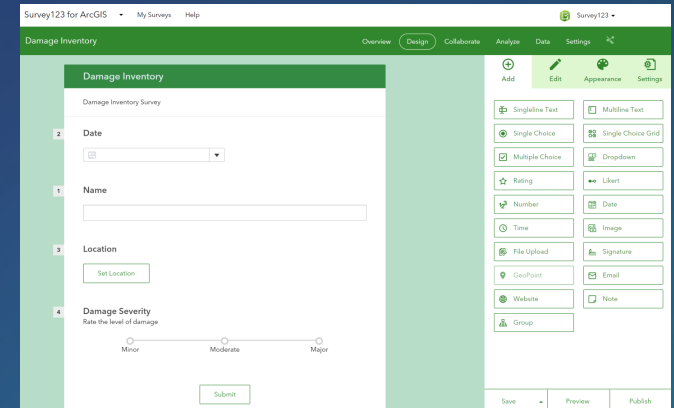
3- Make Decisions

(View & Analyze)

Authoring Surveys

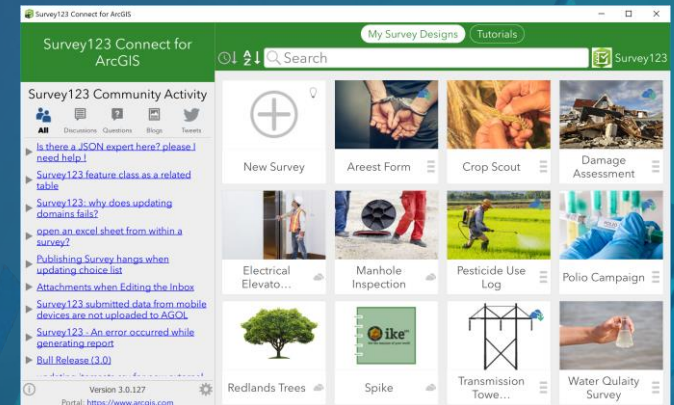
- **Survey123 Web Designer**

- Build smart forms graphically in a web browser
- Very easy to get started
- Ideal for simple forms



- **Survey123 Connect**

- Desktop tool; works in combination with Microsoft Excel
- Requires learning and familiarity with XLSForms specification
- Complete smart form capabilities



Survey123 Web Designer

- Preview in left panel, set parameters in right panel

The screenshot displays the Survey123 Web Designer interface for a survey titled "Damage Inventory". The interface is split into two main panels: a left preview panel and a right design panel.

Left Panel (Preview):

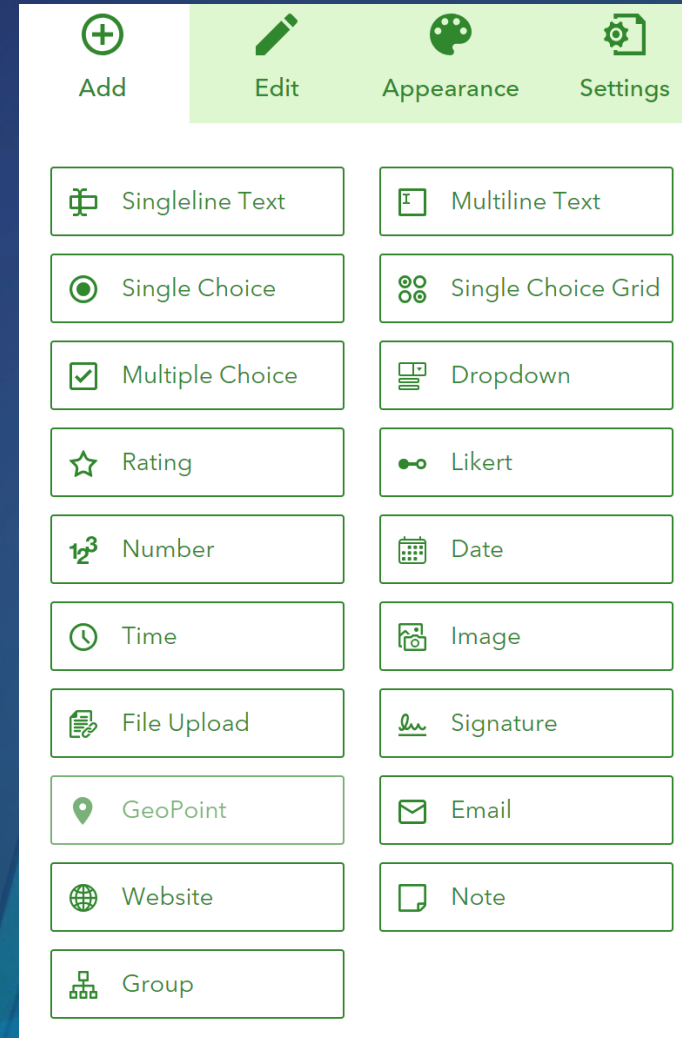
- Title:** Damage Inventory Survey
- Field 2:** Date (calendar icon)
- Field 1:** Name (text input)
- Field 3:** Location (Set Location button)
- Field 4:** Damage Severity (Rate the level of damage) with a slider ranging from Minor to Major.
- Action:** Submit button

Right Panel (Design):

- Navigation:** Overview, Design (active), Collaborate, Analyze, Data, Settings
- Toolbar:** Add, Edit (active), Appearance, Settings
- Widget Palette:**
 - Singleline Text
 - Multiline Text
 - Single Choice
 - Single Choice Grid
 - Multiple Choice
 - Dropdown
 - Rating
 - Likert
 - Number
 - Date
 - Time
 - Image
 - File Upload
 - Signature
 - GeoPoint
 - Email
 - Website
 - Note
 - Group
- Bottom Bar:** Save, Preview, Publish

Survey Question Types in Web Designer

- Most common questions
- Addresses many workflows
- Simple forms



Setting Rules

- Simple conditional statements can control visibility of questions
- Applicable for *Single Choice*, *Dropdown*, *Likert*, and *Rating*

3 Is this your first time shopping with us?

Yes No

✕ 📄 ↕



Set Rule

Show selected questions only if the answer to this question is a specific choice.

If	Show
<input type="text" value="No"/>	<input type="text" value="-Please Select-"/>

Tip: Currently, rules are only supported by Single Choice

- 4. How often do you shop with us?
- 5. What did you purchase?
- 6. Did you have a good shopping experience?
- 7. Which location did you shop at?



3 Is this your first time shopping with us?

Yes No

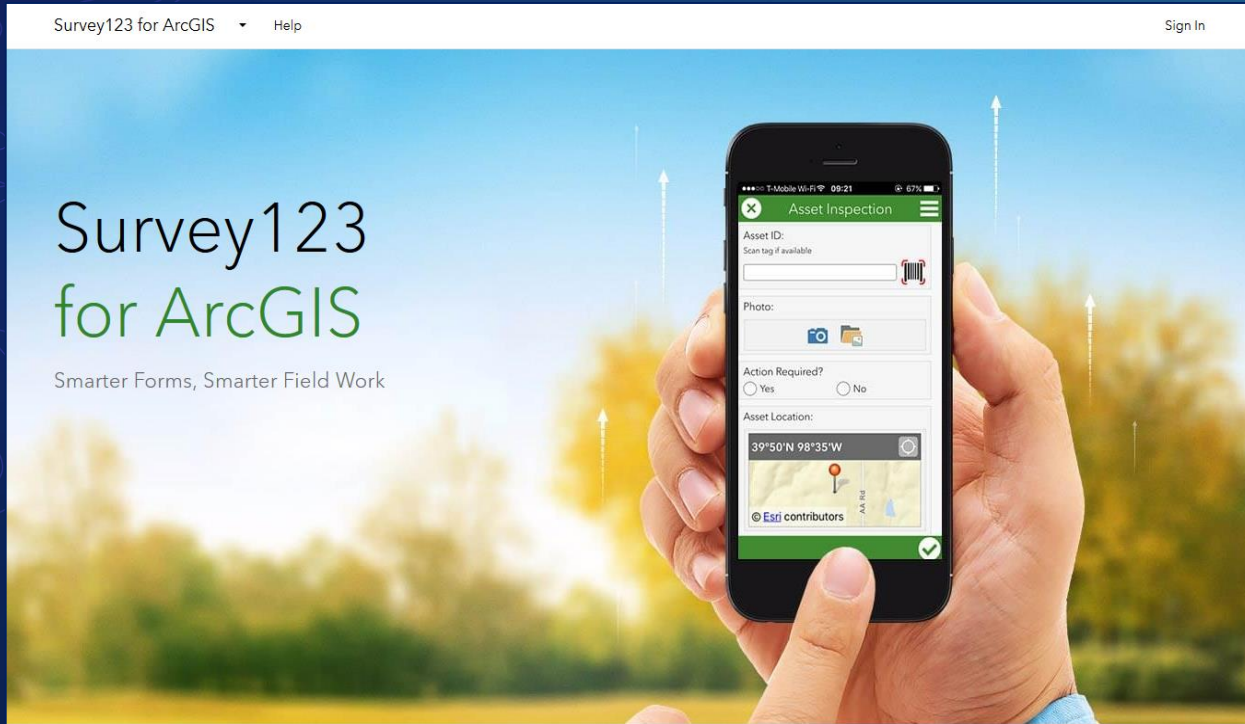
✕ 📄 ↕

4 How often do you shop with us?

Once a week

2-4x a week

More than 5x a week



Tour of Survey123 Author in Web Designer

Updating Surveys



- **Published surveys can be edited in Web Designer**
- **Supported changes**
 - Add new questions
 - Reorder questions
 - Delete questions
 - Update labels in questions
 - Add, update, delete choices in lists
 - Update constraints, default values, hints, and required status

Sharing Surveys

- **Private Surveys**

- Shared with a well-known group of users (secured access)
- Requires use of one ArcGIS accounts per every field user
- Enables Editor Tracking capabilities
- Ideal for sensitive data or when you want to understand who is doing what



- **Public Surveys**

- Shared with everyone
- No need for ArcGIS accounts; anyone can submit data
- Ideal for crowd-sourcing initiatives



Collaborate Tab

- After publishing survey, you control access
 - Data submission → **Submitter**
 - Review results → **Viewer**

Damage Inventory

Overview Design **Collaborate** Analyze Data Settings

Submitter

Viewer

Group Settings

Choose who can submit data to this survey:

- Everyone (Public)
- Members of my organization (UC2018)
- Following Groups:

Damage Inventory

Overview Design **Collaborate** Analyze Data Settings

Submitter

Viewer

Group Settings

Who can view data of this survey?




- Everyone (Public)
- Members of my organization (UC2018)
- Following Groups:

- Agriculture Details
- Transportation Details

Accessing the Survey

- Control how the survey is accessed

Survey link:

Open the survey in browser directly

Ask the user how to open the survey, in browser or in the Survey123 field app

Open the survey in the Survey123 field app directly. ([Learn more about this option](#))



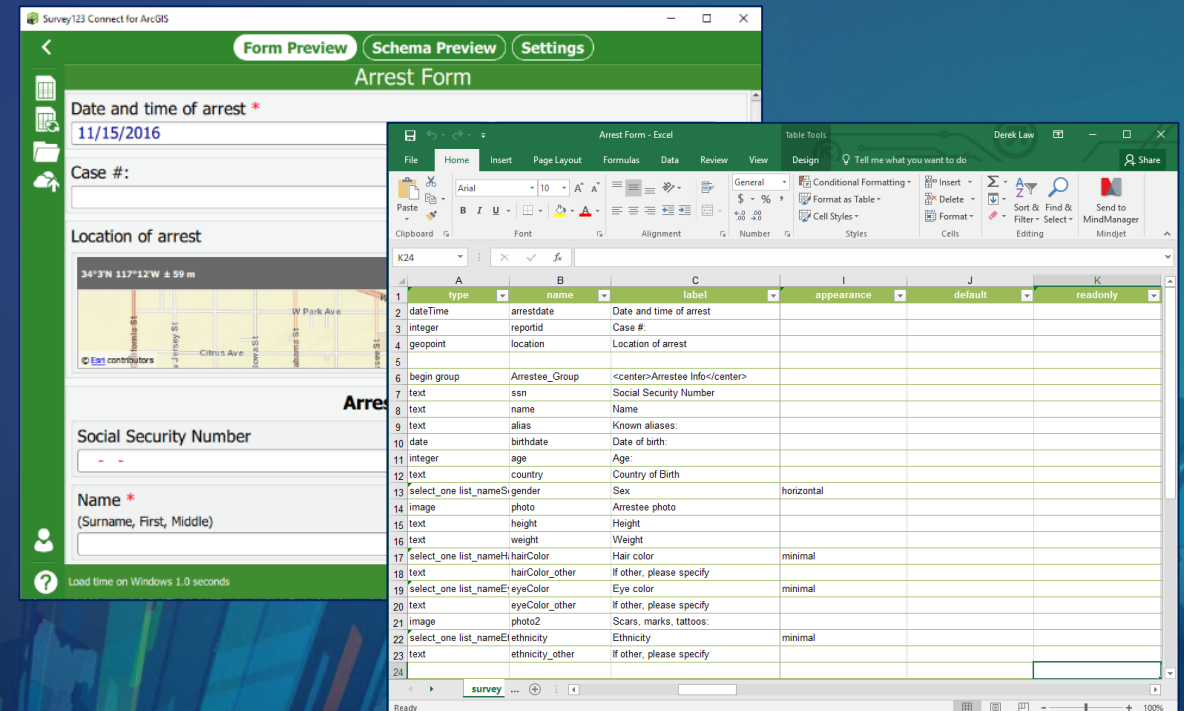
web



devices

Survey123 Connect

- Desktop app → author and publish smart forms to ArcGIS
- Works in combination with a spreadsheet editor
- Available for download at survey123.arcgis.com
- Supported on:
 - Windows 7, 8, 10
 - OS X
 - Ubuntu Linux

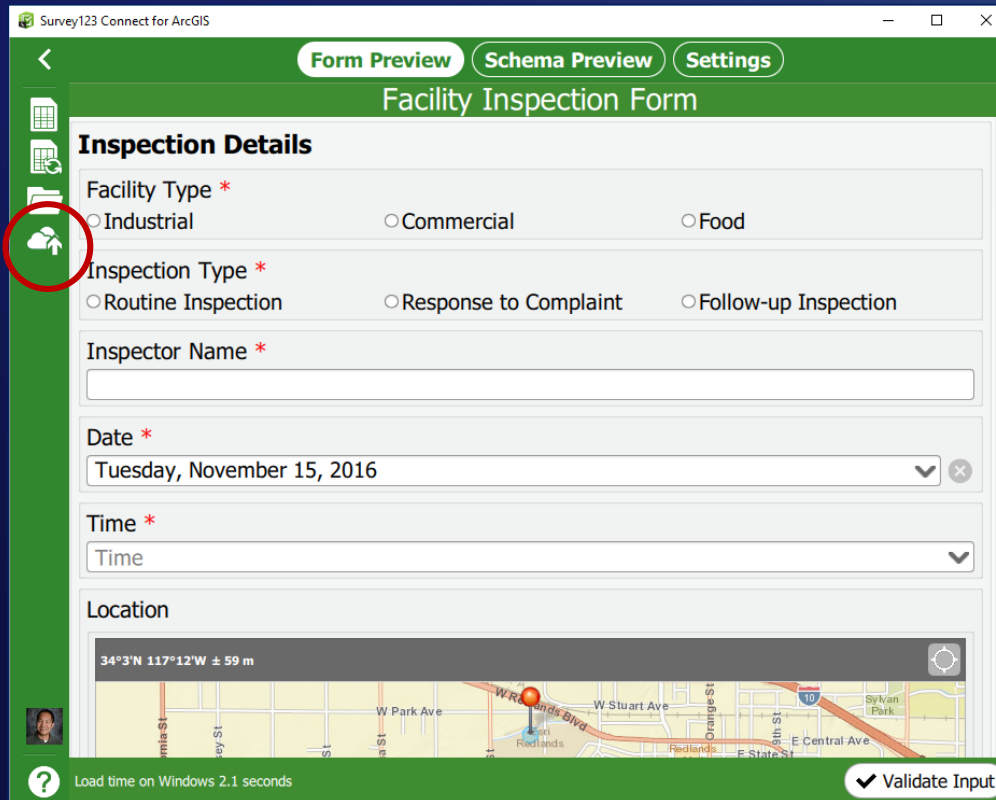


Creating forms in Survey123 Connect

- **Types of questions:**
 - Date and time, numeric, text, choices, spatial location, barcodes, and signatures
- **Logic and validation rules:**
 - Default values, calculations, cascading questions, grouping, relevant associations, and repeats
- **Media (such as images and audio files) can also be used**
- **Connect includes many samples and templates**

Publish surveys

- Publish to an ArcGIS portal (ArcGIS Online or Portal for ArcGIS)



Survey123 Connect for ArcGIS

Form Preview Schema Preview Settings

Facility Inspection Form

Inspection Details

Facility Type *
 Industrial Commercial Food

Inspection Type *
 Routine Inspection Response to Complaint Follow-up Inspection

Inspector Name *

Date *
Tuesday, November 15, 2016

Time *
Time

Location
34°3'N 117°12'W ± 59 m

W. Park Ave W. Stuart Ave Orange St E. Central Ave
W. Redlands Blvd Redlands E. State St
Sylvan Park

Load time on Windows 2.1 seconds Validate Input



Publish Survey

Publish Facility Inspection

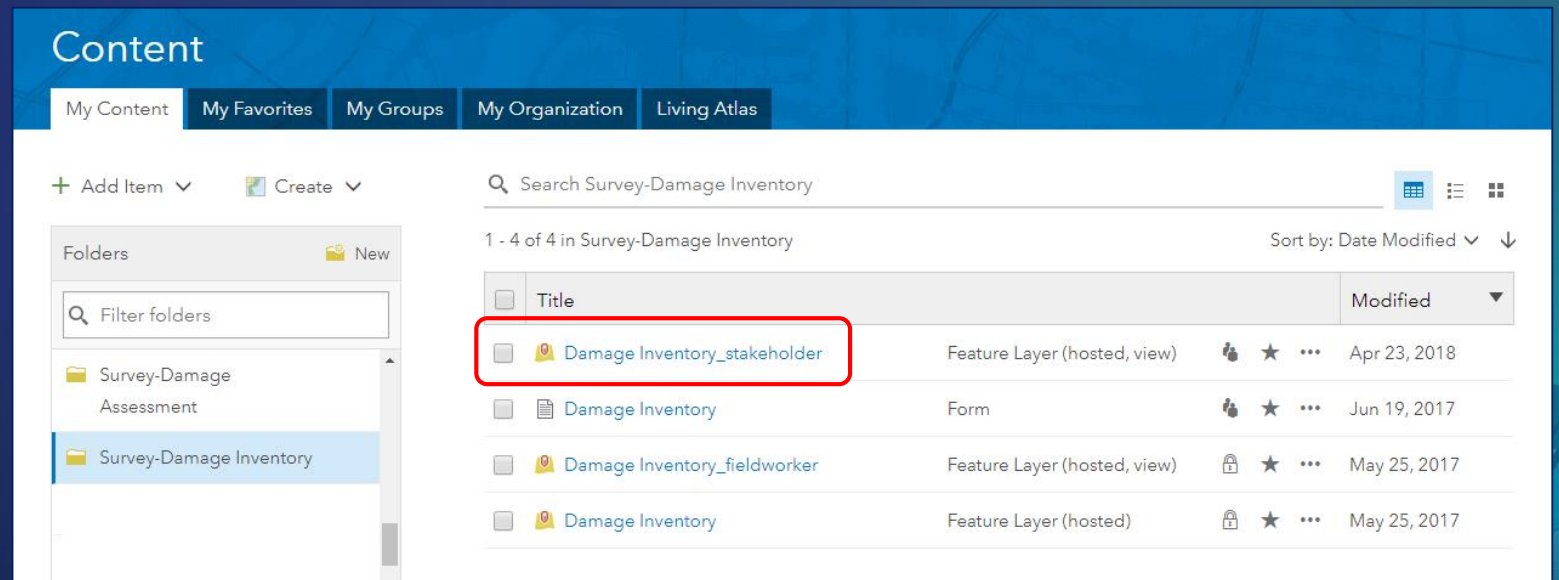
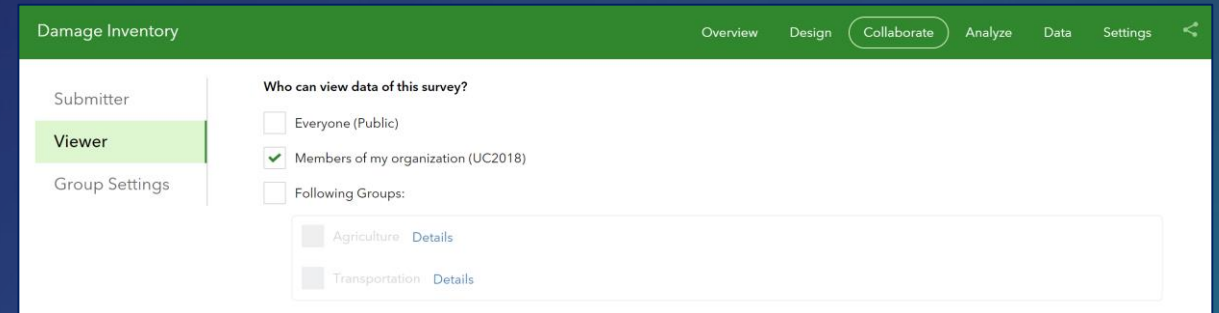
Warning: Once a survey is published, you may not be able to change it without losing data that may have been captured in the field.

Tip: Before you share your survey with field users ensure that your survey design is complete.

Options Publish Survey Cancel

Surveys in ArcGIS Online

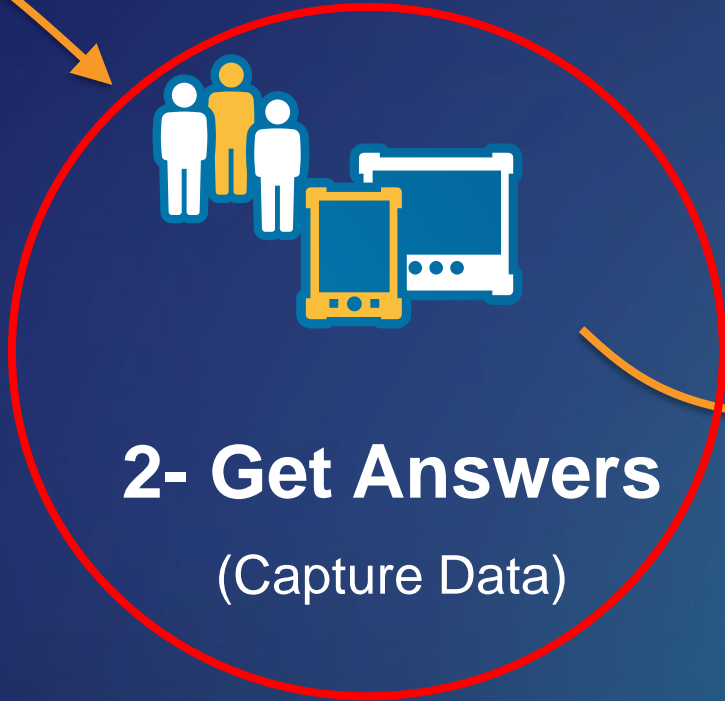
- A survey is stored as a folder
- May have 4 components
 - Form
 - Feature layer
 - Feature layer view (fieldworker)
 - **Feature layer view (stakeholder)**





1- Ask Questions

(Design & Publish)



2- Get Answers

(Capture Data)

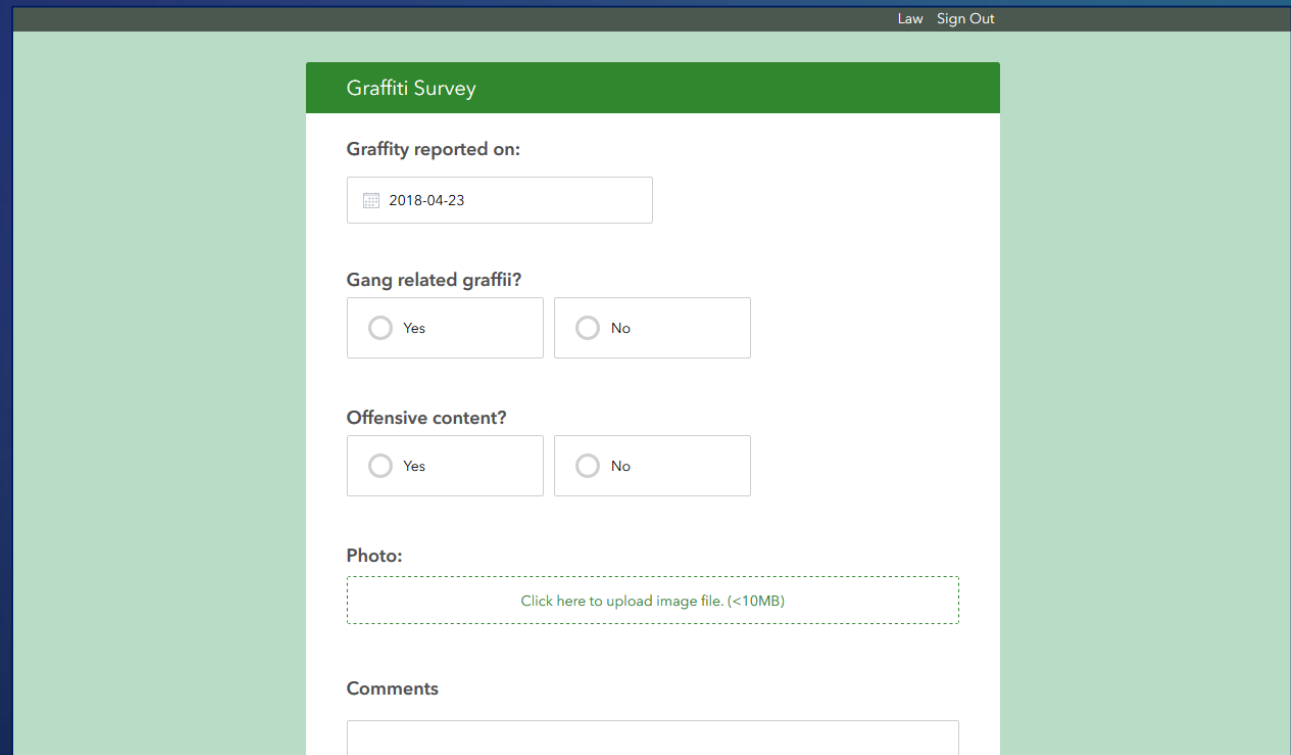


3- Make Decisions

(View & Analyze)

Webforms

- Capture data from a web browser
- Can be embedded within a web site
- Add new data only

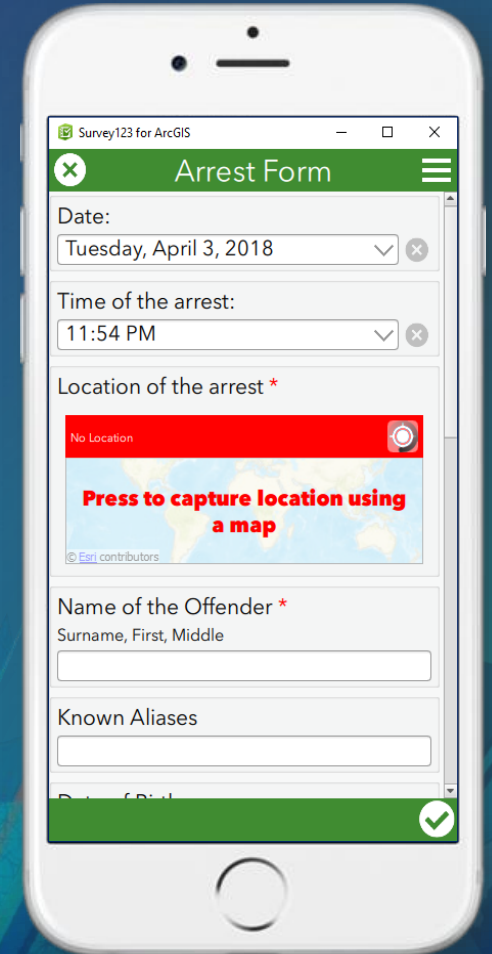
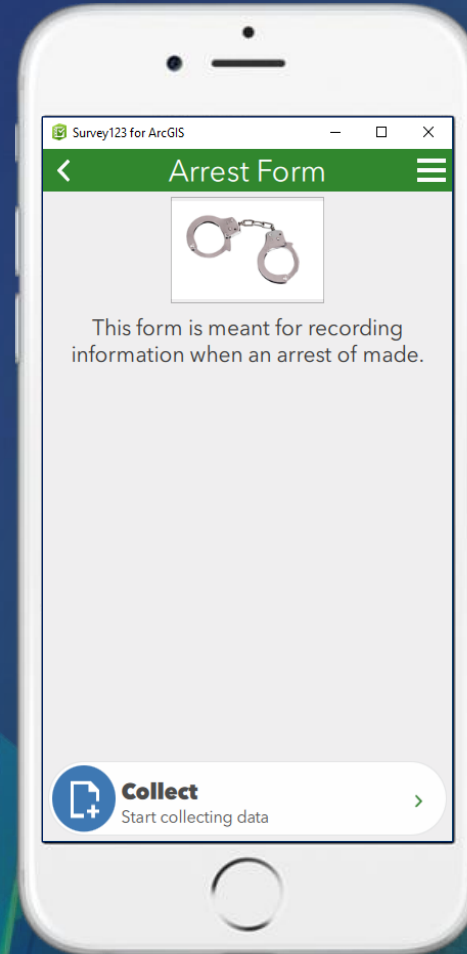


The image shows a screenshot of a web form titled "Graffiti Survey". The form is displayed within a browser window, with "Law Sign Out" visible in the top right corner. The form has a green header bar with the title "Graffiti Survey". Below the header, the form contains several sections:

- Graffiti reported on:** A date picker field showing "2018-04-23".
- Gang related graffiti?:** Two radio button options: "Yes" and "No".
- Offensive content?:** Two radio button options: "Yes" and "No".
- Photo:** A dashed box containing the text "Click here to upload image file. (<10MB)".
- Comments:** A text input field.

Survey123 Mobile App

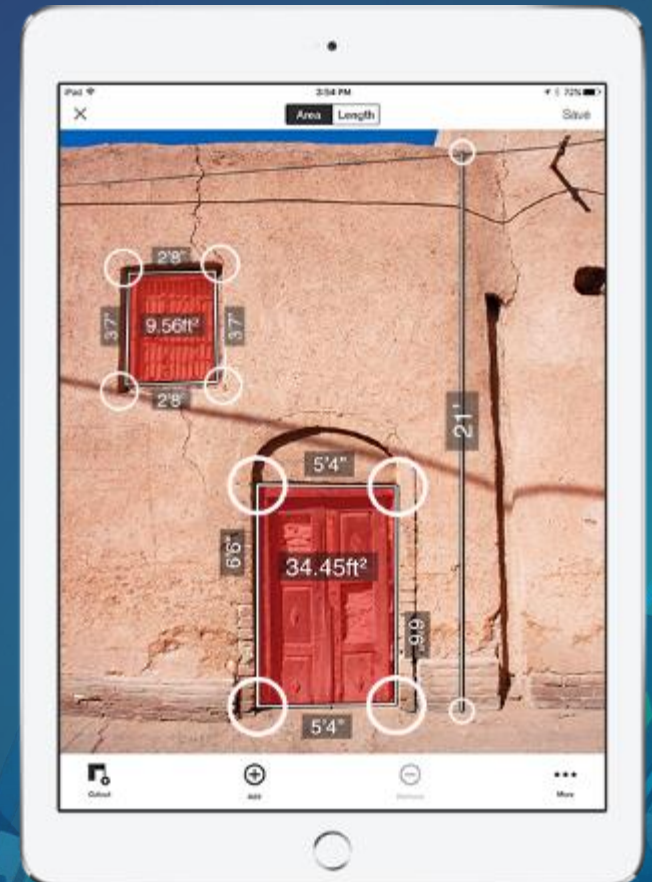
- Use for data collection in the field
- Can capture new data, edit existing data
- Supports offline workflows
- Cross platform



External Devices: Spike



- Rangefinder + Device's Camera
- Measure objects:
 - Distance
 - Location
 - Length / Area



Graffiti Survey

Graffiti reported on:

Gang related graffiti?
 Yes No

Offensive content?
 Yes No

Photo:

Comments

Survey123 for ArcGIS

Arrest Form

Date:

Time of the arrest:

Location of the arrest *

Press to capture location using a map

Name of the Offender *
Surname, First, Middle

Known Aliases

Collecting data with Survey123



1- Ask Questions

(Design & Publish)



2- Get Answers

(Capture Data)



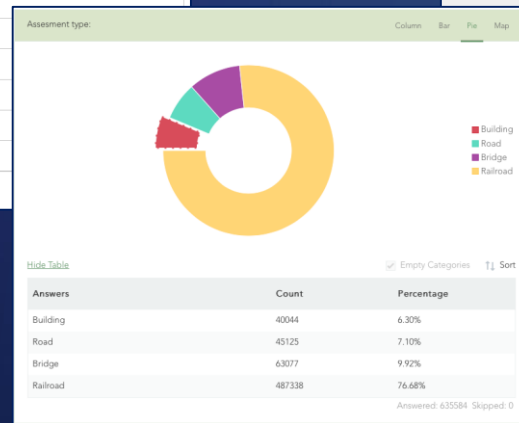
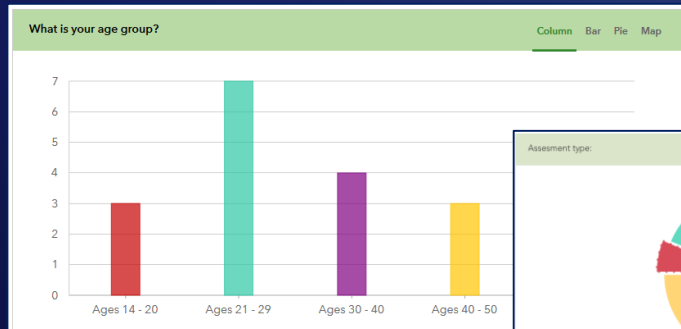
3- Make Decisions

(View & Analyze)



Survey123 Website – Make Decisions

- Ready to use reporting tools
 - Understand data submission patterns
 - Create detailed reports
 - Aggregate survey data
 - Download data



ACME Retail Customer Survey - Active

Overview Design Collaborate Analyze Data

4/22/18 - 4/23/18 Report (Beta) Export Open in Map Viewer Show individual response

surveyPoint (Features: 19, Selected: 0)	Date:	Was this your first time shopping with us?	How often do you shop with us?	What did you purchase?	Other - What did you purchase?	Did you have a good shopping experience?	Rate how you liked the store	Do you shop with us online?	What did you purchase?
	Apr 22, 2018	Yes		Clothes		Agree	4	No	
	Apr 22, 2018	No	Once a week	Food_Home_Goods		Neutral	3	Yes	Clothes
		Yes		Other	Books	Disagree	2	No	
		No						No	

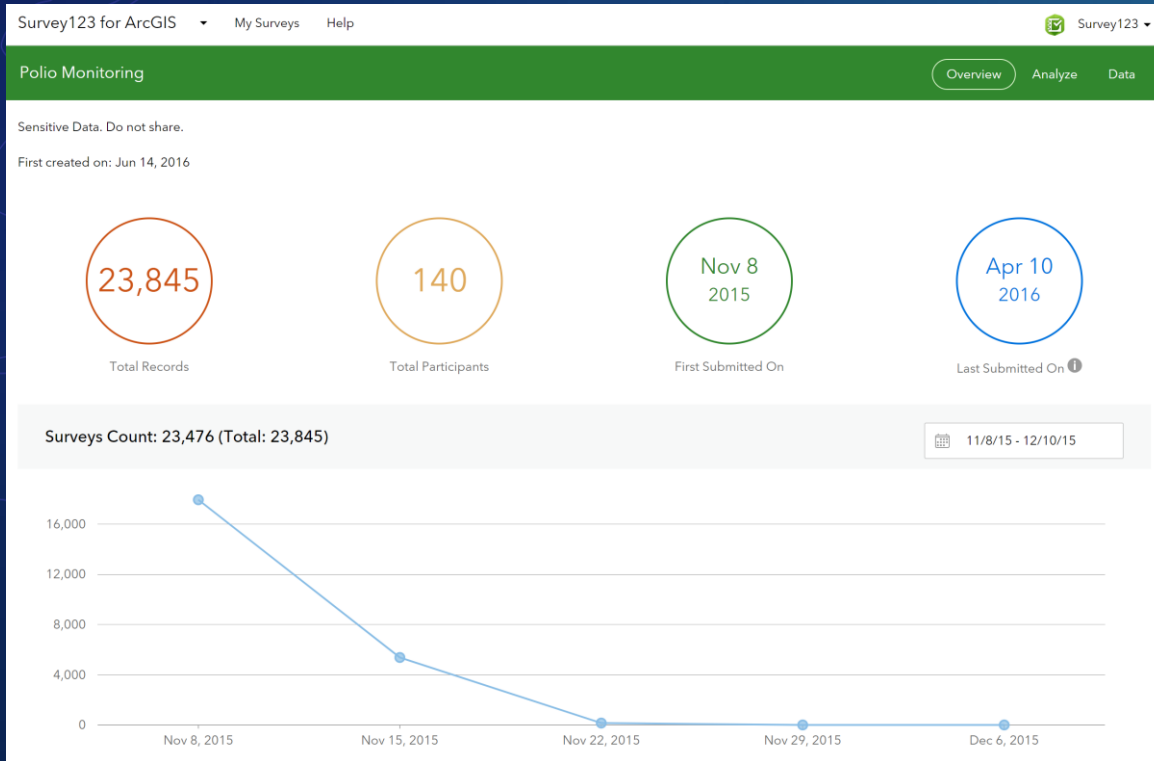
Additional Comments: Word Cloud

Word cloud content: customer, service, was, great, good, staff, friendly, store, items, needed, happy, love, shopping, the, find, and, able, what, found, organized, location, experience, will, need, help, always, convenient, messy, easily, definitely, back, time, sell, needed, love, happy, staff, friendly, store, items, needed, happy, love, shopping, the, find, and, able, what, found, organized, location, experience, will, need, help, always, convenient, messy, easily, definitely, back, time, sell, needed.

Bring your Survey data into ArcGIS

- Survey data is a hosted feature service
- Use with other ArcGIS apps





Explore Survey123 website

Survey123 Documentation

Help Documentation

The screenshot shows the Survey123 for ArcGIS help documentation website. The header includes navigation links: Home, Reference, Create Surveys, Get Answers, and Analyze Results. A search bar is present with the text "Search Survey123 for ArcGIS". The main heading is "Smarter Forms, Smarter Field Work", followed by a sub-heading: "Survey123 for ArcGIS is a simple and intuitive form-centric data gathering solution that makes creating, sharing and analyzing surveys possible in just three easy steps." Below this is a search bar and a list of links: What's new, Requirements, Quick reference, and Learn ArcGIS lessons. Four featured articles are displayed with images and brief descriptions:

- Create a survey on the web:** Create your first survey by dragging and dropping questions on the web.
- Create a survey on the desktop:** Create a survey by editing a spreadsheet and publishing it with Survey123 Connect.
- Explore the field app:** Install the field app on your device, download and submit surveys.
- View survey results:** See the results of your survey come to life in the Survey123 website.

Blog @ GeoNet

The screenshot shows a GeoNet blog post titled "Star Wars Day Release" with a Star Wars logo. The post is dated May 15, 2016, and has 3 likes and 4 comments. The main heading is "Star Wars Day Update (May)". The text reads: "May the Fourth be with you" is a pun first used by Margaret Thatcher's administration in an advertisement celebrating her election victory. While nothing Star Wars has ever actually been released on the fourth, almost every single Star Wars movie was first released in May; The Force Awakens is the only one so far that wasn't. This update contains a lot of behind the scenes work to make the entire Survey123 process run better, as well as a few new features to help in gathering data. The URL [Survey123.arcgis.com](http://survey123.arcgis.com) is provided, along with a link to the management console.

Tutorial Videos @ YouTube

The screenshot shows a YouTube channel page for Survey123 for ArcGIS. The channel has 22 videos, 46,380 views, and was last updated on May 2, 2017. The channel is subscribed to by 3.8K users. A list of seven tutorial videos is shown:

- Survey123 for ArcGIS Product Overview (3:37)
- Survey123 for ArcGIS: Creating Smart Forms with Survey123 Web Designer (4:55)
- Survey123 for ArcGIS XLSForm Tutorial 1 of 5 Creating and Publishing Surveys (3:54)
- Survey123 for ArcGIS XLSForm Tutorial 2 of 5 Creating Selection Questions in a Survey (2:56)
- Survey123 for ArcGIS XLSForm Tutorial 3 of 5 Collecting Images and Signatures in a Survey (1:56)
- Survey123 for ArcGIS XLSForm Tutorial 4 of 5 Enabling Survey Questions with the Relevant Property (2:08)
- Survey123 for ArcGIS XLSForm Tutorial 5 of 5 Creating Groups and Using HTML tags in a Survey (3:14)

Summary

- Product overview
- Authoring surveys
- Collecting data
- Examine survey results
- Questions

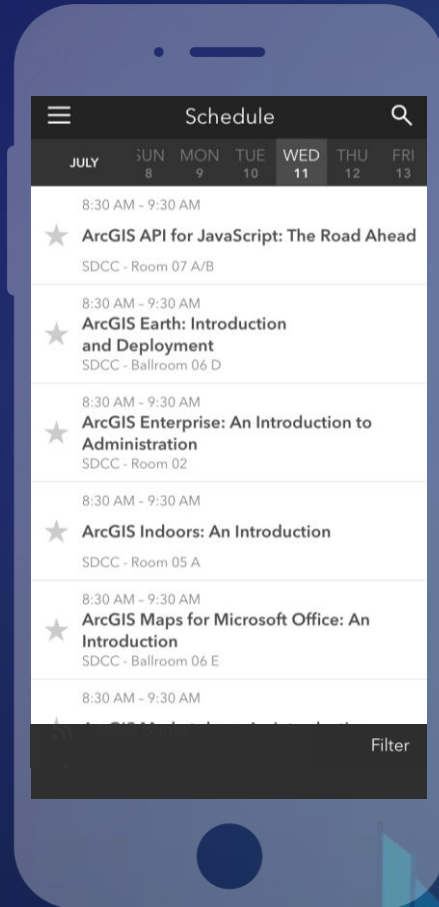


Please Take Our Survey on the App

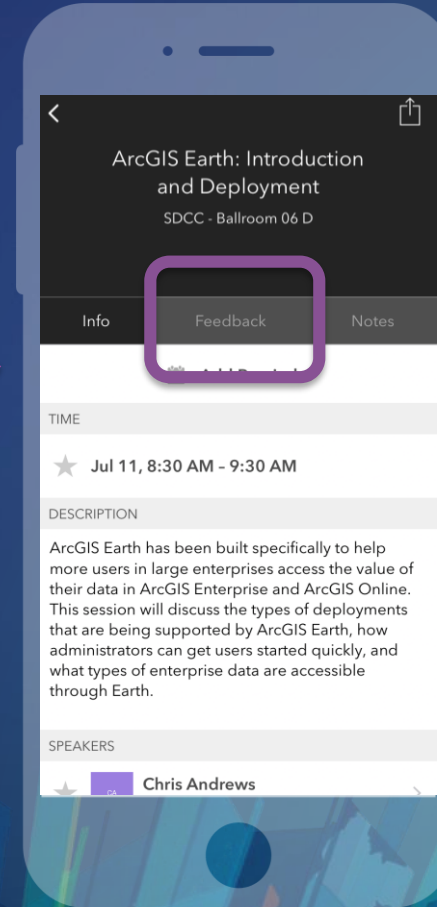
Download the Esri Events app and find your event



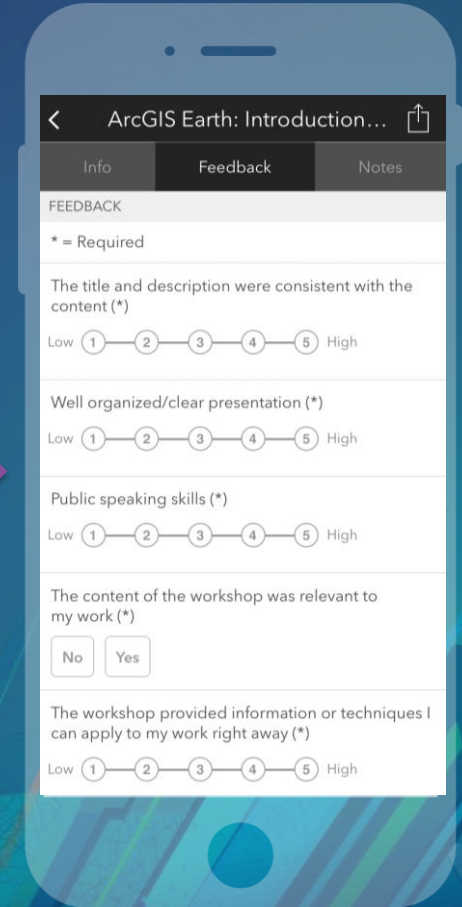
Select the session you attended



Select the Feedback tab



Complete answers and select "Submit"



See Us Here

WORKSHOP	LOCATION	TIME FRAME
<ul style="list-style-type: none">• Survey123 for ArcGIS: Extending the App	<ul style="list-style-type: none">• SDCC - Demo Theater 09	<ul style="list-style-type: none">• Wed, July 11, 10:00 - 10:45 am
<ul style="list-style-type: none">• Survey123 for ArcGIS: Printing Survey Records	<ul style="list-style-type: none">• SDCC - Demo Theater 09	<ul style="list-style-type: none">• Wed, July 11, 11:15 - 12:00 pm
<ul style="list-style-type: none">• Survey123 for ArcGIS: Creating Smart Forms Using XLSForms and Survey123 Connect	<ul style="list-style-type: none">• SDCC - Room 09	<ul style="list-style-type: none">• Wed, July 11, 2:30 - 3:30 pm
<ul style="list-style-type: none">• Survey123 for ArcGIS: Advanced Topics	<ul style="list-style-type: none">• SDCC - Room 05 A	<ul style="list-style-type: none">• Thurs, July 12, 2:30 - 3:30 pm



esri

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SCIENCE
OF
WHERE**