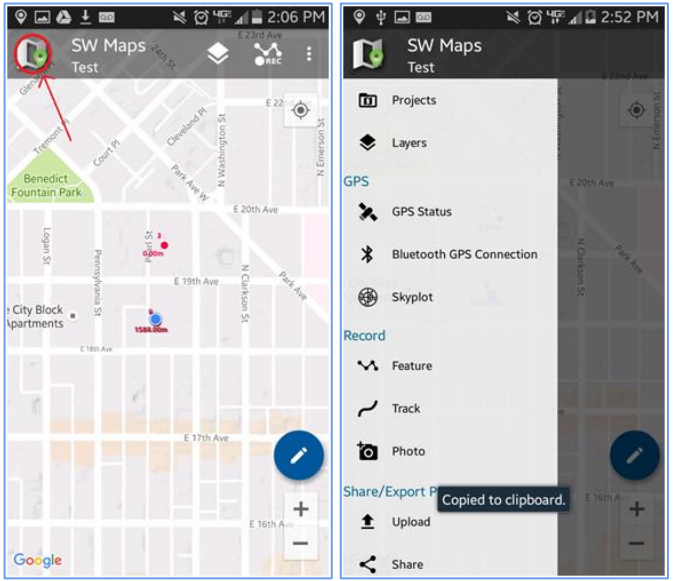
SW Maps

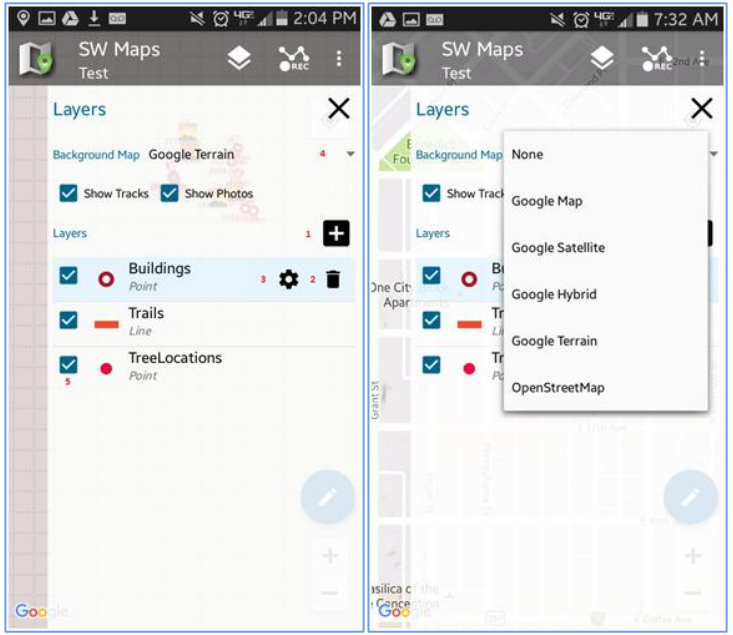
- SW Maps is a freeware field data collection application that can be downloaded from Google Play Store (*no iPhone App Store availability)
- Uses Google Maps as its source for base maps
- Performs well and is an easy to learn, user friendly application

Main Screen and Menu

- Open main menu by tapping the SW Maps logo in the top left corner, as shown by the red arrow
- Allows user to create new data sets, collect data, verify GPS status, and share/export collected data



Layers



(1) Add new layers to current active project

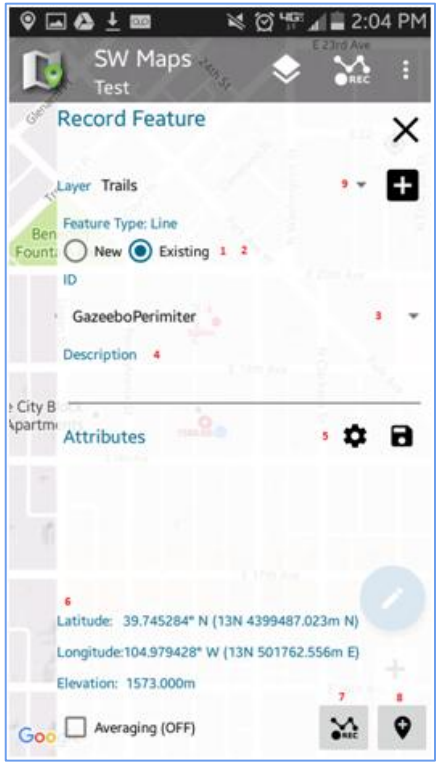
(2) Delete existing layers

(3) Modify individual layer settings

(4) Change background map

(5) Toggle visibility of individual layers on and off

Record Feature



(1) Record new feature

(2) Modify existing feature

(3) Select existing features by user given names

(4) Add a description for individual features

(5) Add and define attribute fields

(6) Displays latitude, longitude, and elevation values for current feature

(7) Record point features

(8) Record line features

(9) Switch between existing layers as well as add new ones

Record Track

This feature allows the user to record a continuous feature. For example, if you wish to record the position of a tree, you would use Record Feature. However if you wish to record a bike trail, you would use Record Track

(10) Track name

(11) Add description for feature

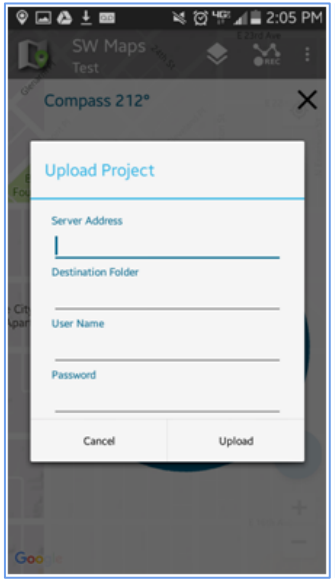
(12) Select color of feature

(13) Designate minimum distance between points collected along track - i.e. no less than 5 m. between points

(14) Designate minimum time between GPS points being collected - i.e. no less than 5 seconds between points

(15) Designate minimum required accuracy - i.e. within 3 meters

Transfer Data



SW Maps offers several options for transferring your data

- Upload data to a server
- Share the data in desired format via email and Google Drive
- Export data to storage on mobile device

Record Photo

This feature allows the user to record a photograph of a feature and attach a set of latitude and longitude coordinates to it.

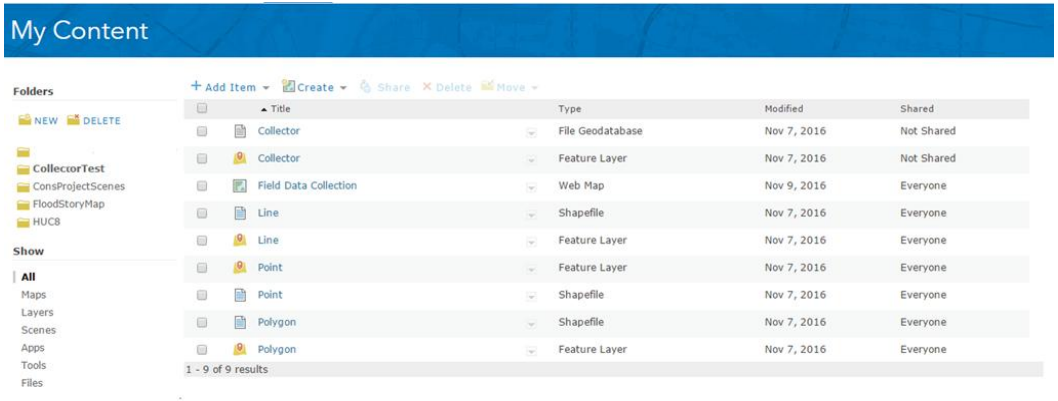
Conclusions

- ❑ Freeware product that can be easily and quickly downloaded and installed
- ❑ The interface is well organized and easy to follow
- ❑ Data recording tools are fairly user friendly and easy to figure out
- ❑ Supports multiple data formats for output and sharing
- ❑ This is a good free mobile tool, especially in the context of training others to use it, given its simple and easy to understand design
- ❑ The biggest drawback to SW Maps was mentioned in the beginning, its limitation to Android phones. Due to the lack of availability on the AppStore, iPhone users will not be able to utilize the tool

ESRI ArcGIS Collector

Collector for ArcGIS

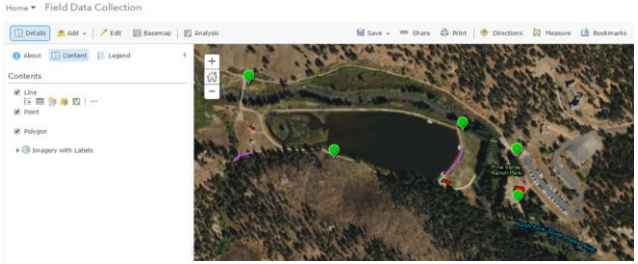
- Offline use capable
- Export to .GDB, .SHP, .XLS from AGOL
- Ease of use with ArcGIS online
- Allows collection of points lines and polygons
- Allows collection of all types of ArcGIS data, including long form text and string fields.
- Works off of Map Services that are created and stored on AGOL
- Available for iOS and Android



Smartphone interface

[Collector Notes from ESRI]

Usability



- Can use map services created in either AGOL or ArcGIS desktop
- Data is synced to AGOL through the cloud, no export is available directly from smartphone app
- This means all data is transferred through ESRI servers, and is not secured.

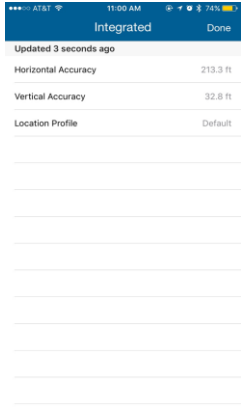
Pros

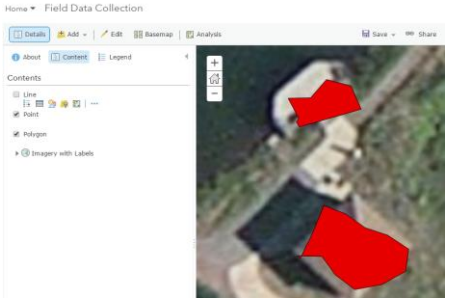
- Fast, streamlined map creation
- Photo / PDF attachments
- Easy to use on desktop and mobile
- Support for external receivers
- Easy to use offline
- Streamlined integration with ArcGIS online / desktop
- Cloud based data transfer

Cons

- All data travels through ESRI servers and is not secured
- AGOL subscriptions are a large cost
- No export data option from mobile App, all data must travel through AGOL

Accuracy





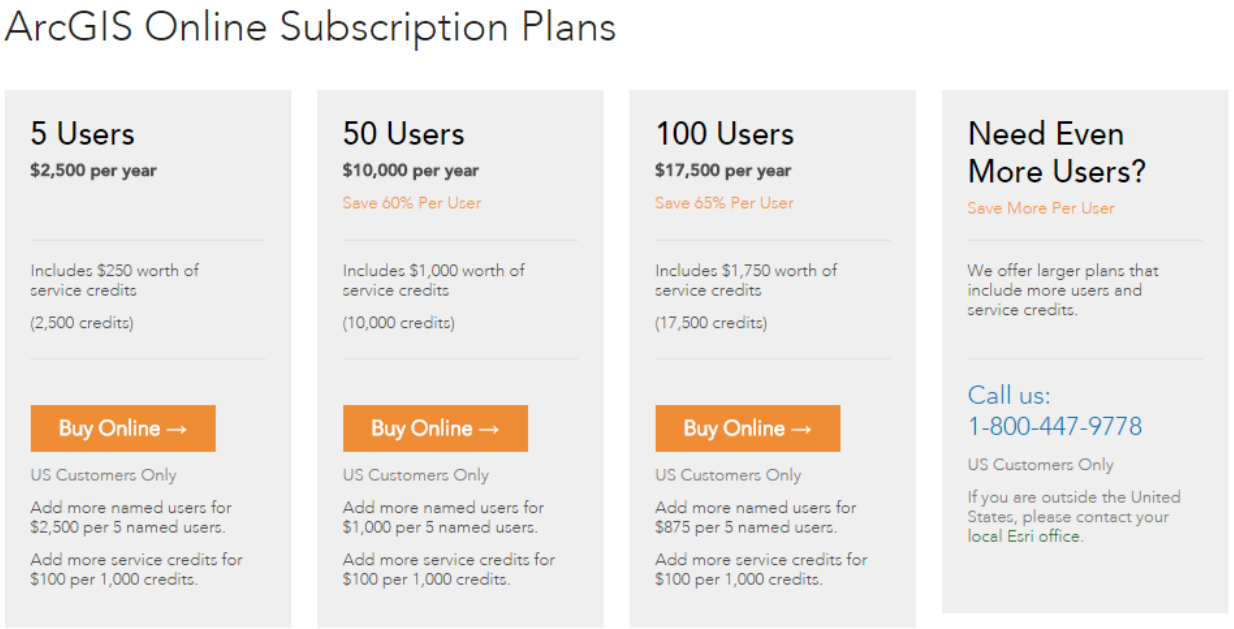
- Live accuracy listed within the smartphone app
- Can be increased with external GNSS receivers (Garmin GLO)
- Polygon data must be taken extremely slowly to be accurate

High Accuracy Basemap download for offline use

ArcGIS Subscription Pricing

For use with Collector and Survey123

- Both Collector and Survey123 require access to ArcGIS Online for use
- Listed here are prices for AGOL subscription access
- Cheapest organizational plan starts at $2,500 per year



AppSheet

AppSheet

Background

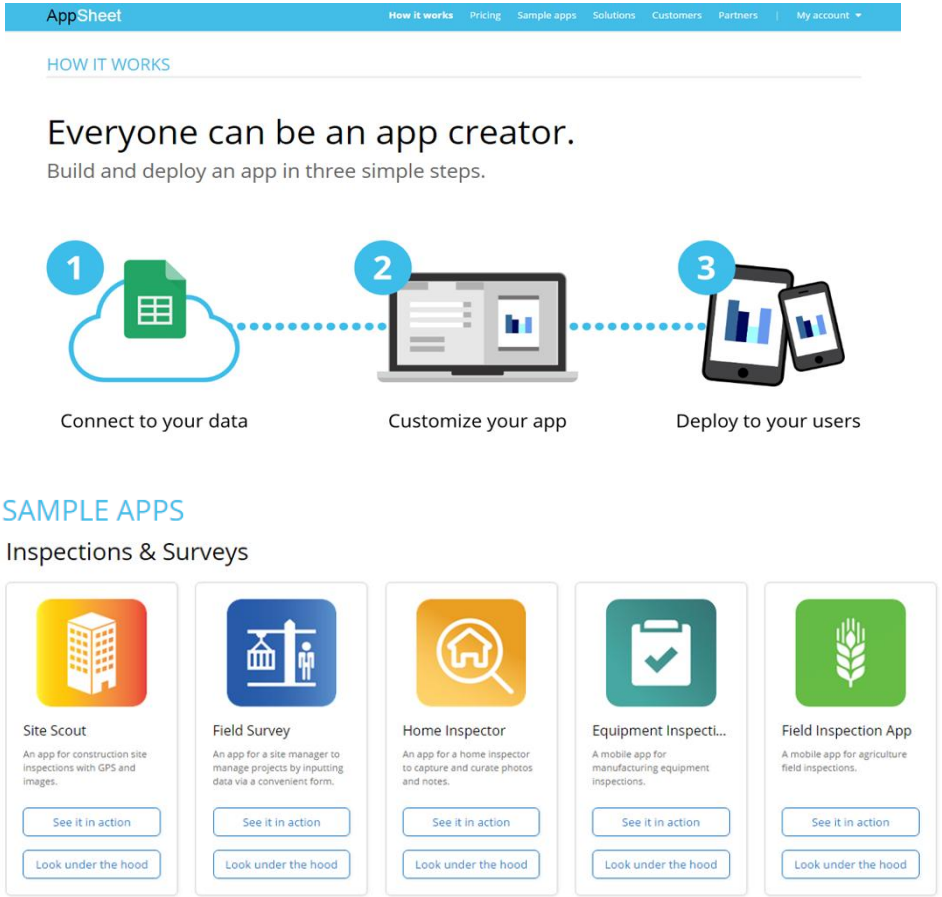
- Design/customize your own apps (no coding exp. needed)
- Many app templates to build off of

Data

- Syncs on the fly with cloud-based data storage
- Point features only
- Offline capable

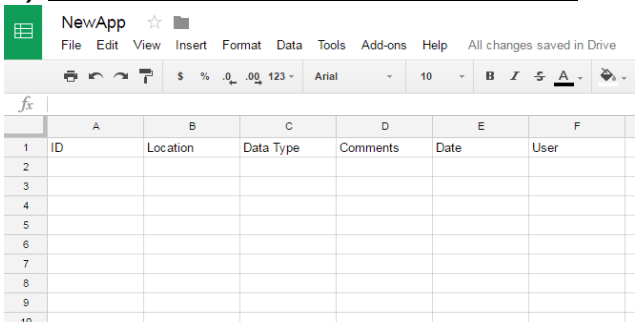
https://www.appsheet.com/

- No direct .shp/kmz export
- Image capture and storage



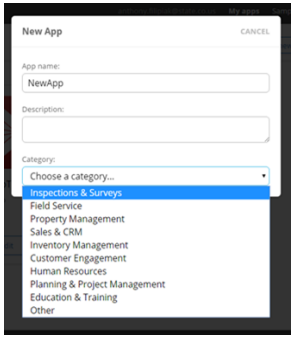
How It Works

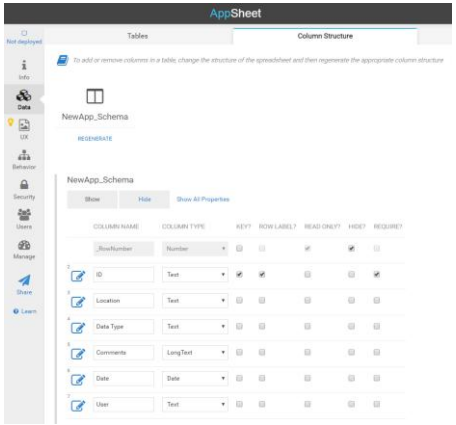
1) Create a blank spreadsheet to hold data



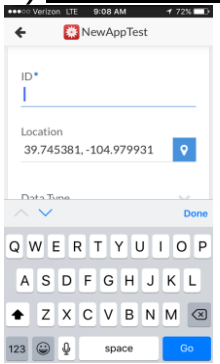
	A	B	C	D	E	F
1	ID	Location	Data Type	Comments	Date	User
2						
3						
4						
5						
6						
7						
8						
9						

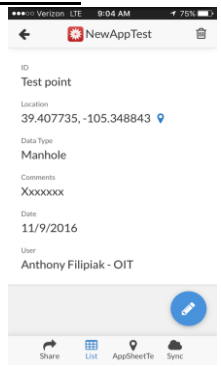
2) Build app on AppSheet website

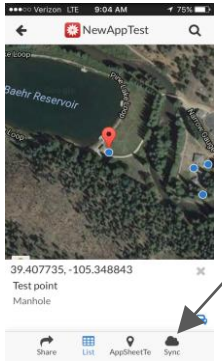




3) Collect data in the field







4) Sync data from app to spreadsheet

	A	B	C	D	E	
1	ID	Location	Data Type	Comments	Date	User
2	Test	39.409844, -105.3529	Sign	Test comment 1	11/9/2016	Anthor
3	Xxxx	39.408782, -105.3530	Tree	Test comment 2	11/9/2016	Anthor
4	Test point	39.407735, -105.3488	Manhole	Xxxxxxx	11/9/2016	Anthor
5	Pavilion	39.407529, -105.3474	Sign	Pavilion	11/9/2016	Anthor

Pricing Packages

Pay per user

Control user access and features

	Standard	Premium (OUR MOST POPULAR PLAN)	Pro
	Perfect for small businesses and teams	Powerful data control and user management	Large teams, greater control, white label apps
	$1 per user per month	$5 per user per month	$10 per user per month
	Sign up	Sign up	Sign up
	Includes these great features:	Everything in Standard, and:	Everything in Premium, and:
Features	All standard app features* Unlimited apps	Run your apps offline Add automated email notifications	App life-cycle management App usage analytics White label apps for Android (at least 10 users)
Security	Manage users of your apps	Track user changes to your data Add security filters to app tables	Audit trail Log retention policy Sensitive (PII) data policy
Data Sources	*Use one of the following:* Google Drive DropBox OneDrive	Add multiple data sources Box Smartsheet OneDrive for Business with Office365	SQL Server Salesforce Google Cloud Platform - coming soon
Support	AppSheet community Online documentation	Priority email support Connect with AppSheet partners	Professional services available *additional fees applicable*

Pay per app

Broadcast apps to a wide audience

	Publisher	Publisher Plus (OUR MOST POPULAR PLAN)	Publisher Pro
	For small-scale apps Up to 100 users	For large-scale apps More than 100 users	For white label apps Corporate data sources
	$10 per app per month	$20 per app per month	$50 per app per month
	Sign up	Sign up	Sign up
	Includes these great features:	Everything in Publisher, and:	Everything in Publisher Plus, and:
Features	All standard app features*	Run your apps offline Add automated email notifications	App life-cycle management App usage analytics White label apps for Android
Security	Publisher plans cannot restrict access to users. Anyone with a link to the app can open and view its data.	Publisher plans cannot restrict access to users. Anyone with a link to the app can open and view its data.	Publisher plans cannot restrict access to users. Anyone with a link to the app can open and view its data.
Data Sources	*Use one of the following:* Google Drive DropBox OneDrive	Add multiple data sources Box Smartsheet OneDrive for Business with Office365	SQL Server Salesforce Google Cloud Platform - coming soon
Support	AppSheet community Online documentation	Get priority email support Connect with AppSheet partners	Professional services available *additional fees applicable*