



ArcGIS Field Maps



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Field Operations | Focused apps for each activity...





ArcGIS Field Maps | Mobile app strategy



Best in breed mapping system



World class data collection solution



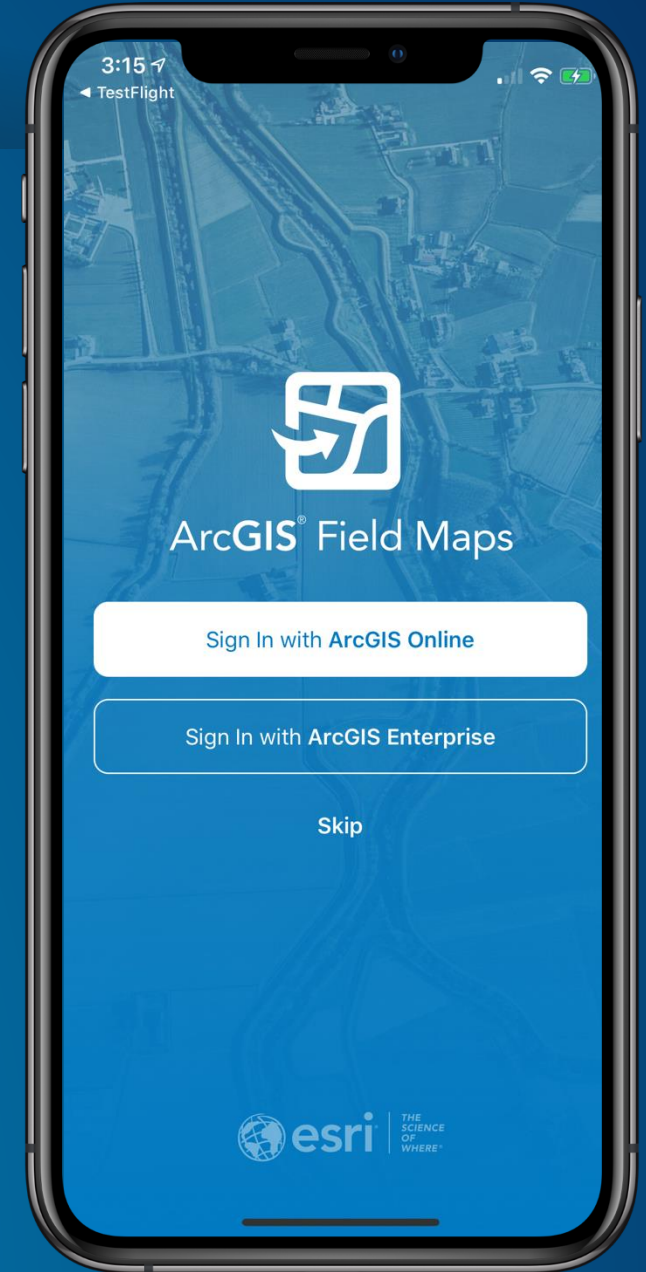
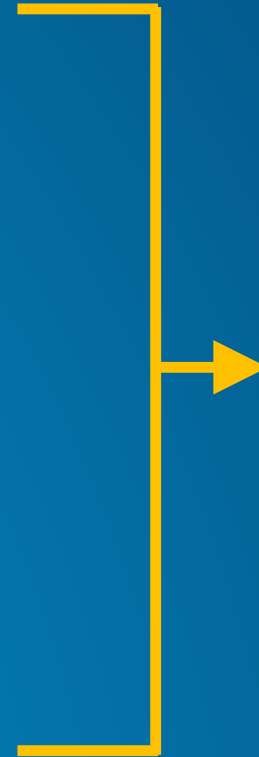
Revolutionary location tracking technology



World class tasking and work management



State of the art navigation capabilities

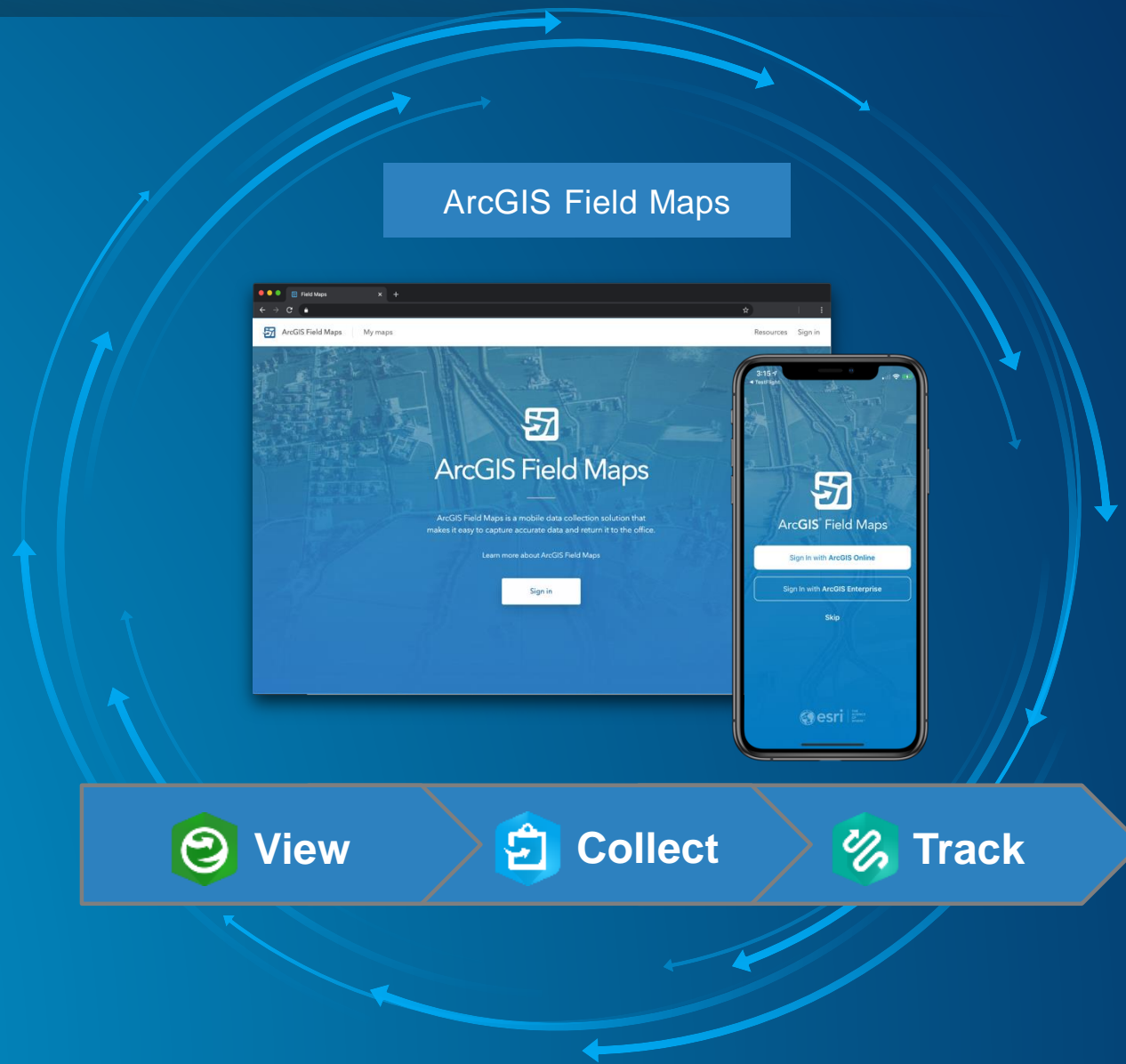


Capabilities coming together in phases



ArcGIS Field Maps | 5 key capabilities in one app

1. Map Viewing
2. Map Markup
3. Data Collection
4. Asset Inspection
5. Location Tracking



 View

 Collect

 Track



ArcGIS Field Maps | 5 key benefits

1. One app to deploy + learn
2. Sign-in to ArcGIS only once
3. Eliminate duplication of offline content
4. Smaller aggregate app footprint/download
5. Consistency across apps



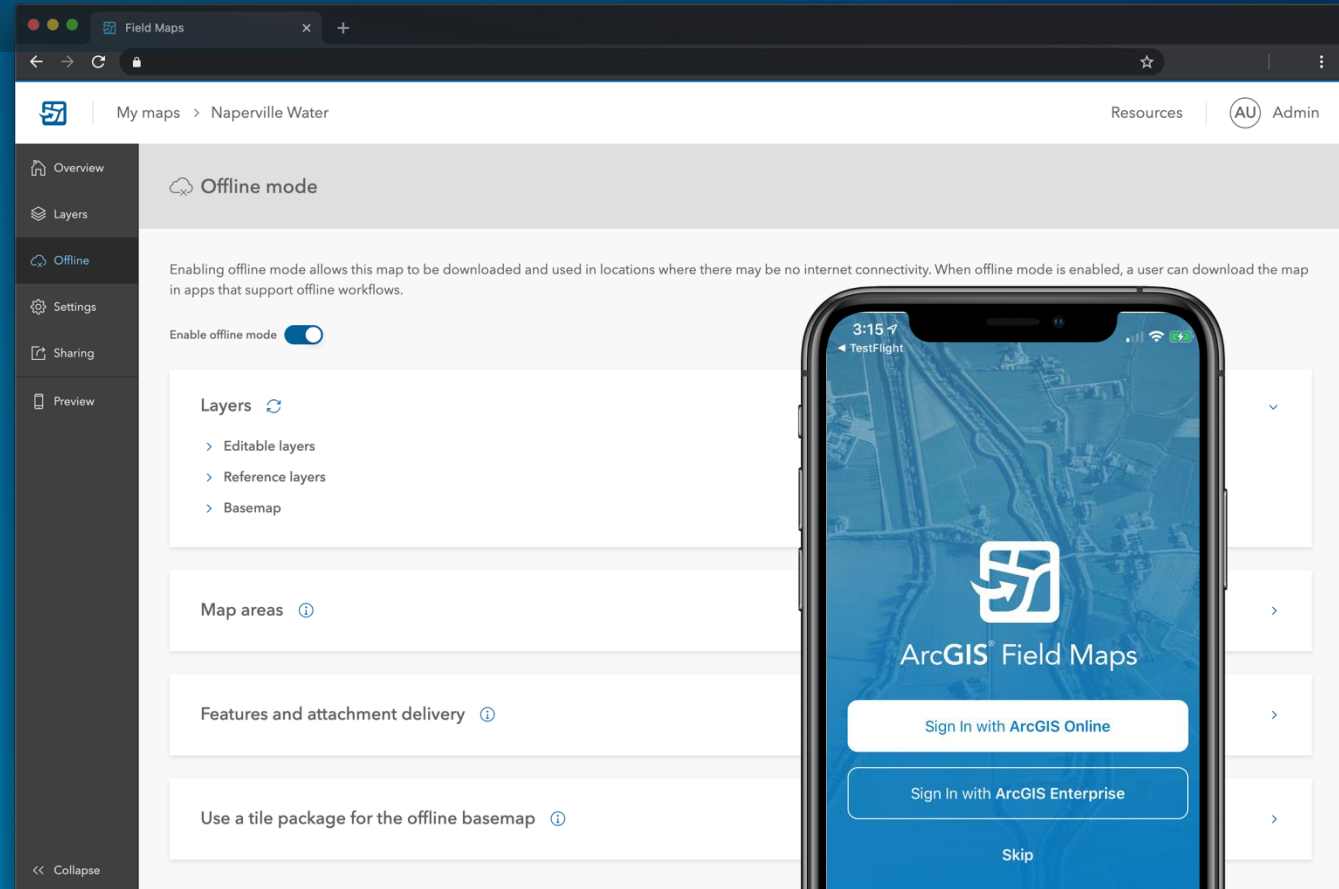


Full featured mobile app:

- View maps
- Collect and update data
- Record and share tracks
- Indoor mapping
- Receive and complete work assignments
- Turn-by-turn navigation

Back-office web app:

- Simplify map deployments
- Configure and deploy maps
- Manage offline content
- Create and preview smart forms
- Dispatch and manage work





ArcGIS Field Maps | User types and licensing

If you have a...

In Field Maps, you can...



Field Worker, Creator, or GIS Pro named user

Perform inspections, create or update your asset inventory, add photos/attachments, and simplify multi-app workflows



Viewer named user

Achieve situational awareness workflows, view dynamic web maps, use offline maps, create markup



ArcGIS Tracker premium app license

Enable location tracking workflows, report your location in real-time, record a 'breadcrumb' trail of your location history



ArcGIS Collector app license

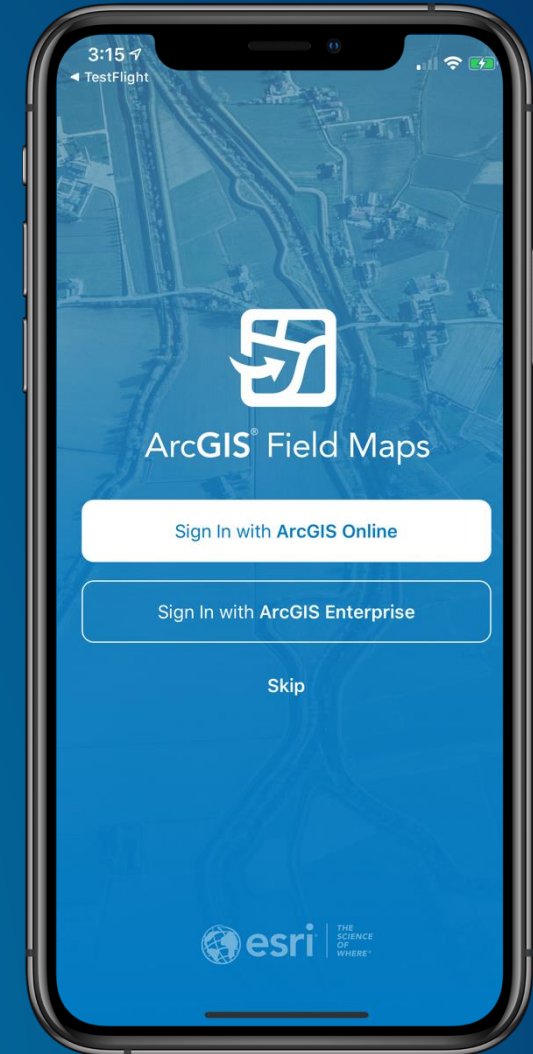
Create and edit GIS data from your mobile device with high accuracy, add attachments, work offline





Key capabilities

- Map viewing
 - View rich cartographic maps, update in real-time
 - Search location, addresses, features
 - Support for Indoor maps
- Map markup
 - Freehand sketch, marker placement
 - Share peer-to-peer, by email, to organization
- High accuracy data collection
 - Capture point, line, area features
 - Use external GPS or map
- Robust smart form editing for inspections
 - Simplified form management, conditional visibility, required fields
- View, record and share location tracks
 - Apple watch support, track for duration



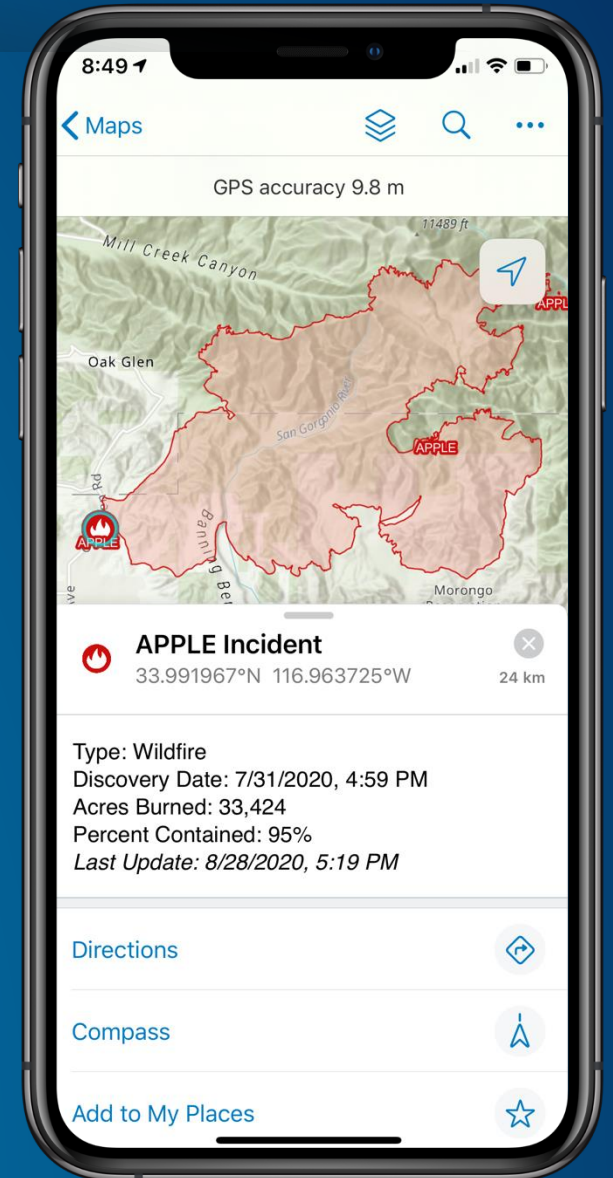


Map Support

- Advanced symbology/Labeling (w/Arcade)
- Group layers, Annotation
- Popups (w/Arcade including feature sets)
- Layer refresh for auto-updates

Map Tools

- GPS (rotate using compass)
- Basemaps, Bookmarks, Layers, Legend
- Measure (lines, areas)
- Search (locations, coordinates, features)
- Share Map
- Sync map changes (when offline)
- Directions (Navigator, Google Maps, Apple Maps)
- Compass





Markup Layers

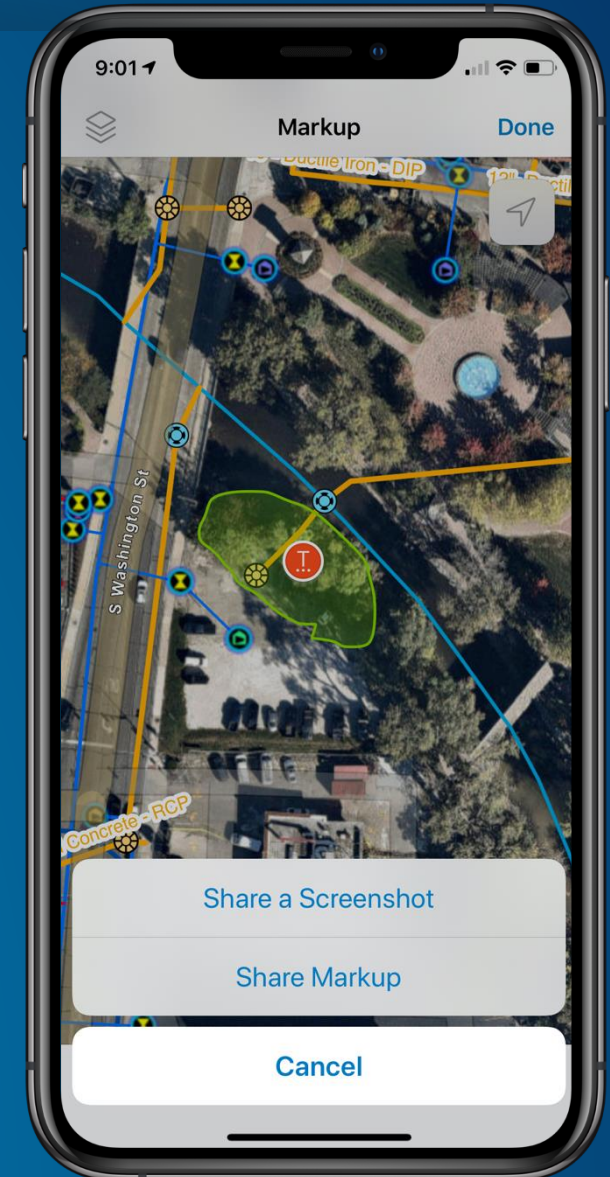
- Markers, lines, arrows, areas
 - Choose color
 - Label and note attributes
- Save markup in one or more layers
- Turn markup layers on/off with Layers tool

Markup Tool

- Place a marker
- Freehand sketch lines and areas
- Recognize shapes
- Move graphics

Share Markup

- OTA, by email, text message
- ArcGIS organization





- Need better GPS accuracy
 - 1 – 3 meters for above ground assets
 - > 1 foot for below ground assets
 - Cm accuracy for construction projects
- Key GNSS Partners
 - Dual, Garmin
 - Eos Positioning Systems, Geneq, Bad Elf
 - Juniper, Trimble, Leica
- Different ergonomic solutions
 - Pole mount
 - Back-pack
 - 3D printed attachments...





- GPS Capture capabilities
 - Single Point/vertex capture (w/ Z-value)
 - Streaming data capture (lines/areas)
 - Averaging
- Understanding Accuracy
 - GPS bar
 - GPS metadata
 - Required accuracy
 - Confidence level
- Connecting to Receiver
 - Location Provider
 - Location Profile

Profile Accuracy

Distance (centimeters) 5

Set required location accuracy for data collection.

Centimeters

Meters

95% Confidence

Report horizontal and vertical accuracy at a higher confidence level.

GPS Details

Updated Just Now

Provider R2, 5544S01871: Trimble

Altitude (HAE) 1,183.9 ft

Horizontal Accuracy (RMS) 0.6 in

Vertical Accuracy (RMS) 1 in

Fix Type RTK Fixed

Station ID --

Correction Age 1 sec

Satellites (Used/Visible) 13/31

Current Location Profile Esri base station

Correction Source NTRIP

Battery 52 %

Profile Streaming

Time

Distance

Distance (meters) 3

Set how often to collect a new point while streaming.

GPS Averaging

Points to Average 5

Set the number of points you would like to average. Minimum number of points is 2.

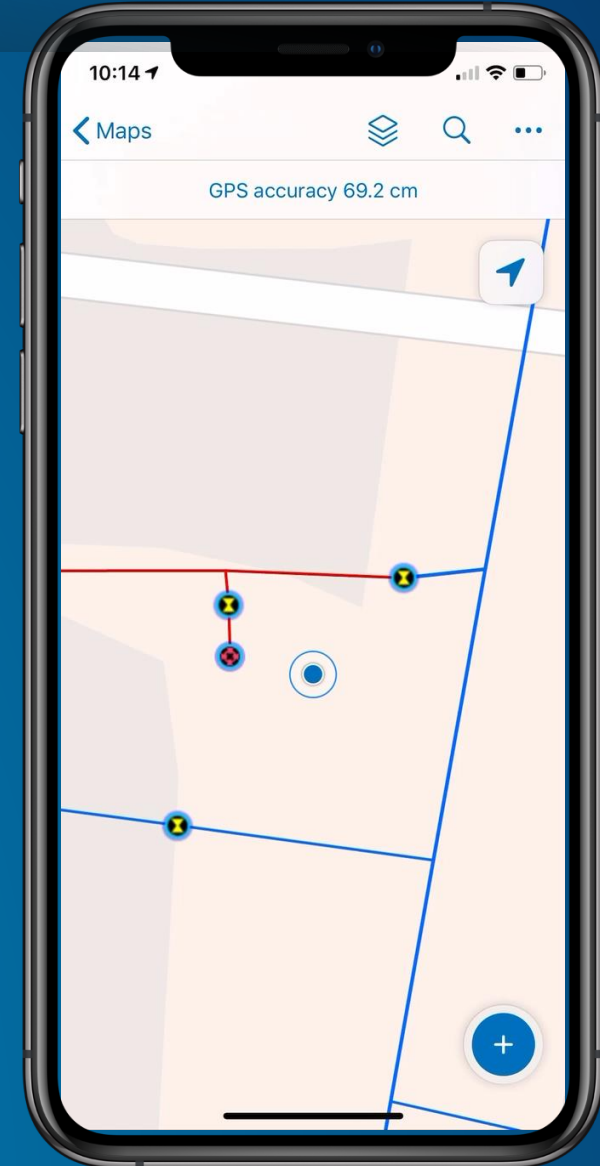
Cancel Add Provider

Bad Elf #145285 [Add](#)

To pair a new receiver to your device, go to Bluetooth Settings.

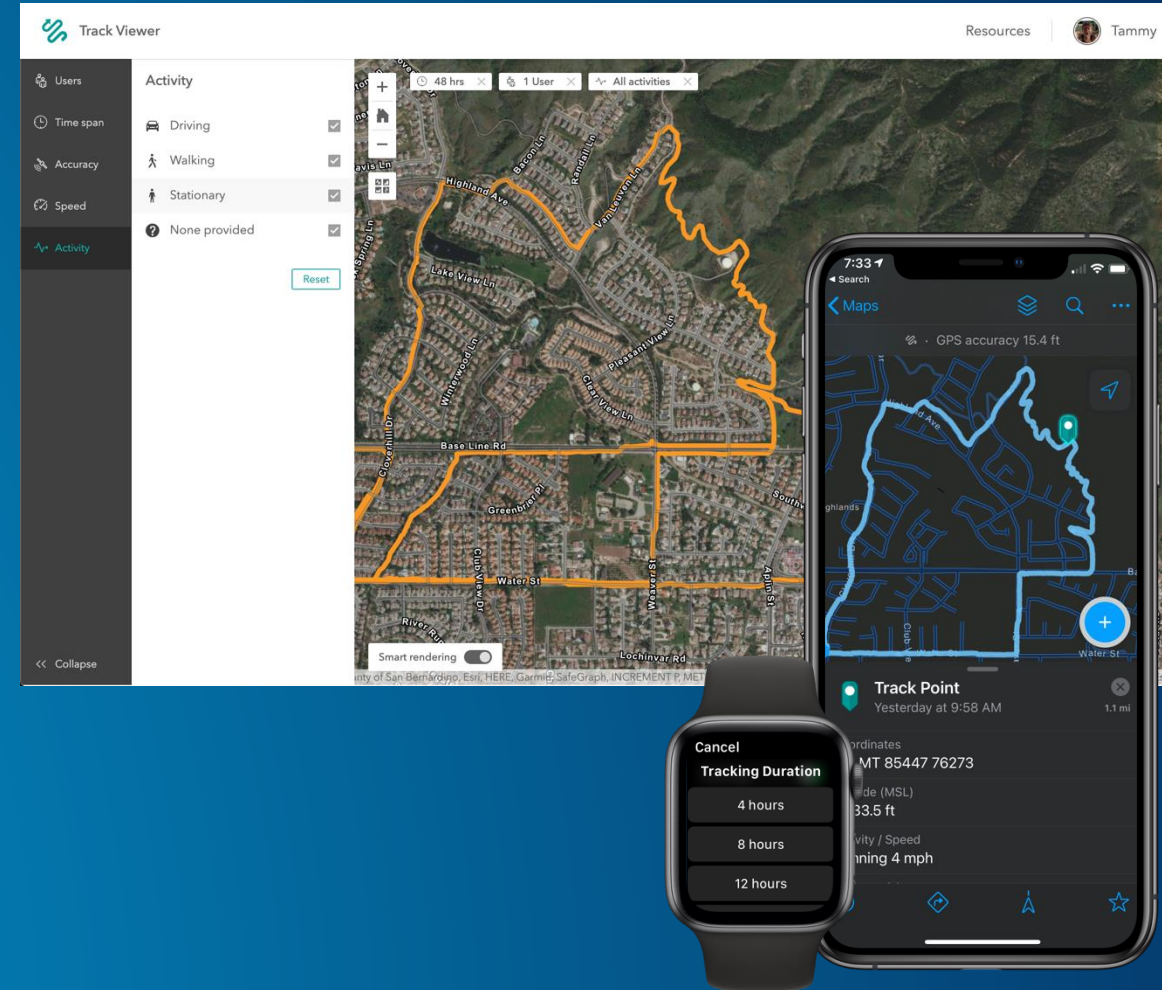


- Transaction model support
 - Non-versioned
 - Traditional versioning
 - Offline Branch versioning (10.8.1+)
- Inspection types
 - Feature inspections (new feature, update attributes on existing)
 - Historical, tabular inspections (model using 1:M relationships)
- Smart forms supported on layers and tables
 - Group fields, apply conditional visibility
 - Use pick lists, required and read-only fields





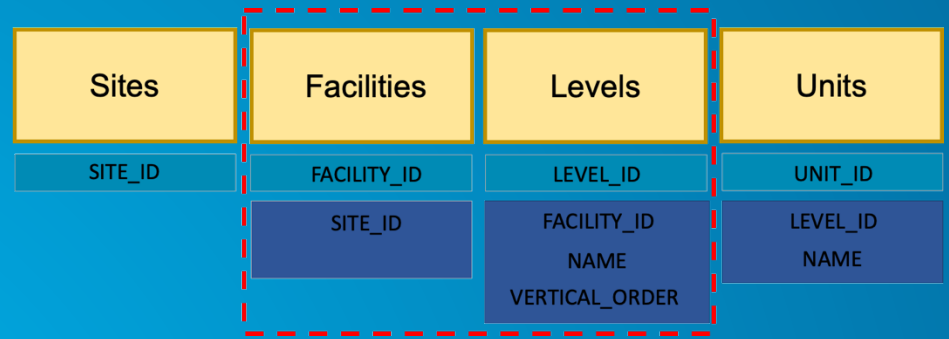
- Supports Viewer user type + ArcGIS Tracker license
- Battery savings location tracking capability, driven by activity
 - Track for a duration
- View location tracks in any map (iOS/Android)
 - Turn tracks layer on/off
 - Set track duration
- Supported on Apple Watch
- Use Track Viewer to share tracks with others



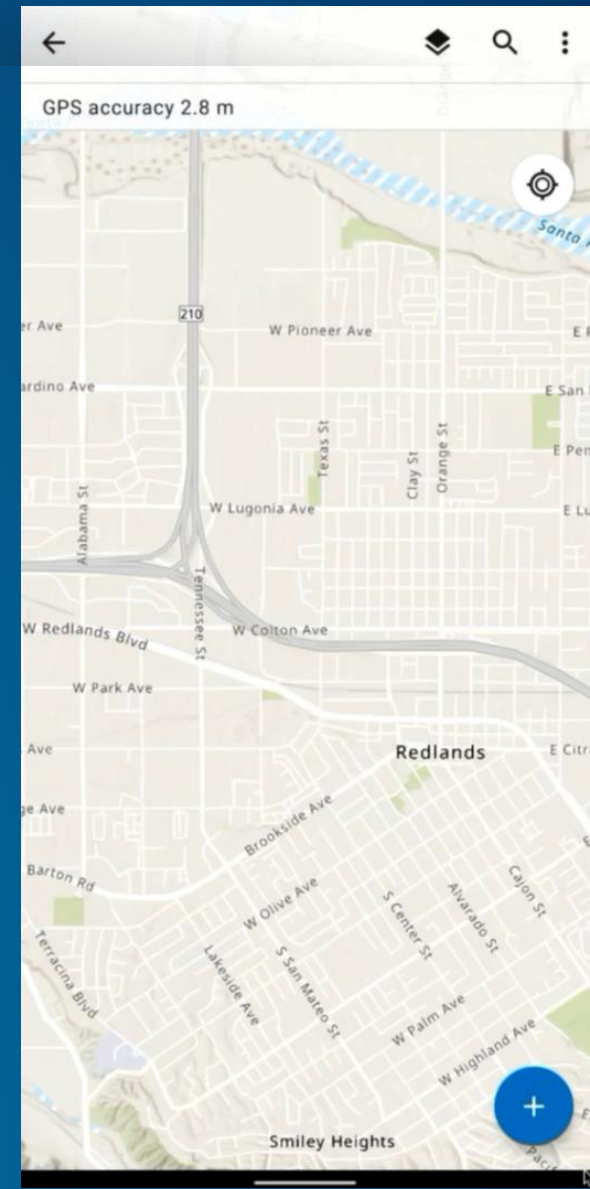


ArcGIS Field Maps supports the Indoors information model

- Map packages
- Web maps
- Floor picker and floor panel
 - Available when Facilities, Levels layers are present in the map



- Additional web feature layers that conform to the model will be filtered as well.
 - Including editable feature layers



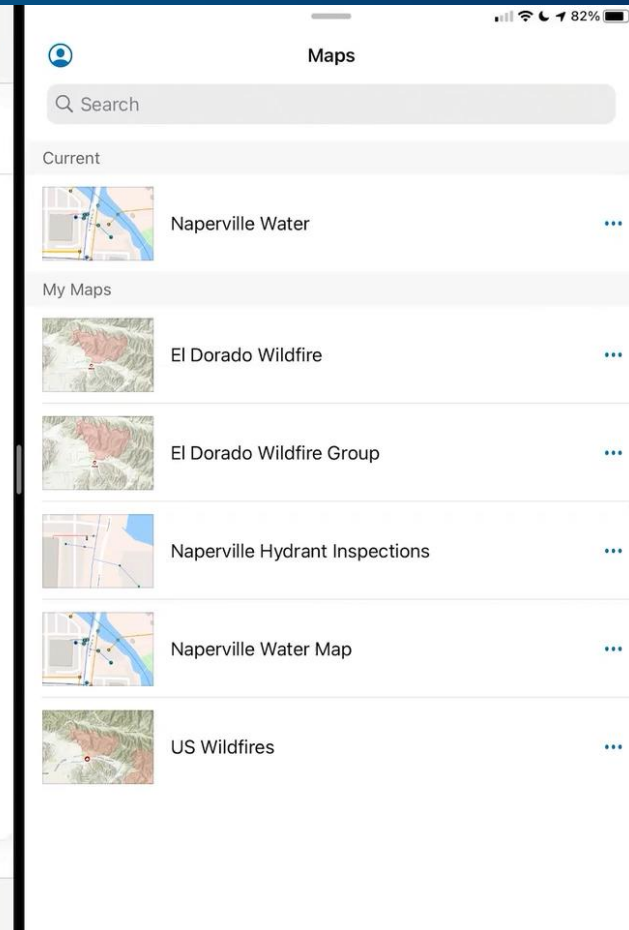
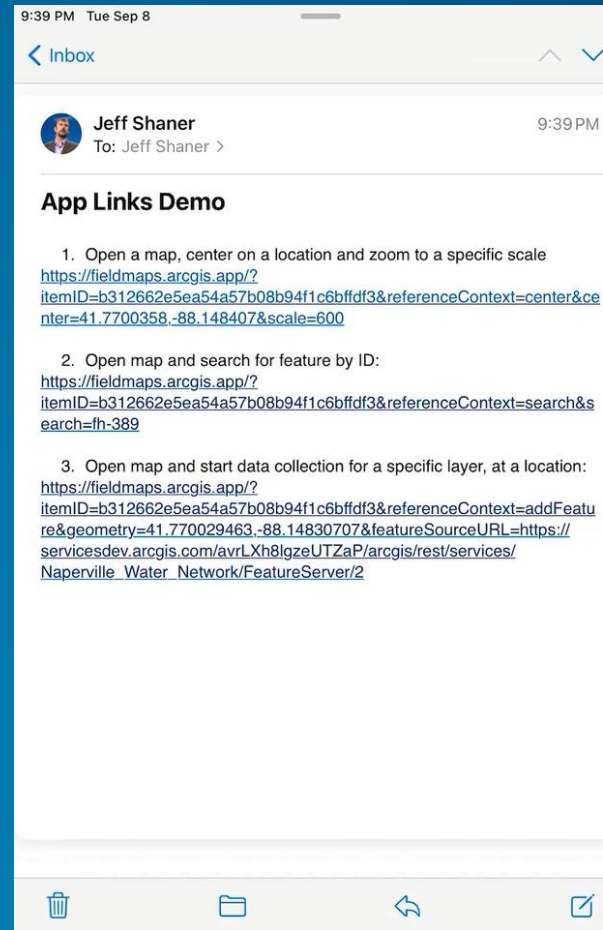


Remotely control Field Maps using App Links:

- From another app
- From an email or text message

App Link capabilities include:

- Opening a map or map package
- Centering a map at a certain location/scale
- Searching a map using coordinates, locations, feature attributes
- Starting data collection (with a location, spatial reference, collection of attributes)
- Updating attributes of an existing feature
- Callback to another application

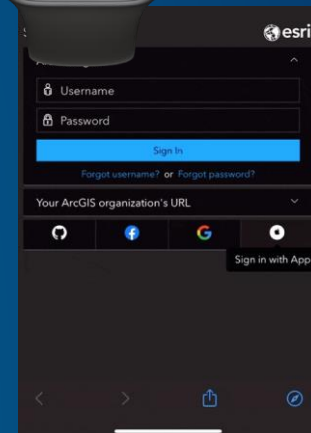
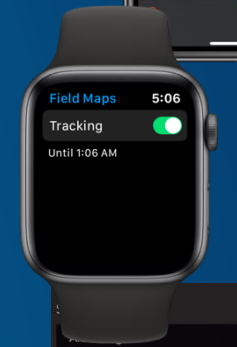
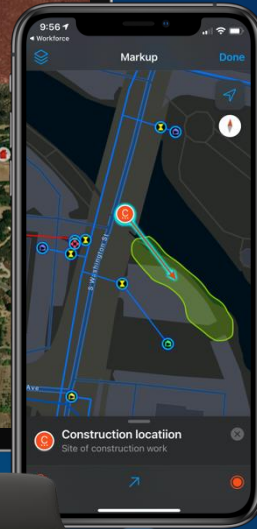
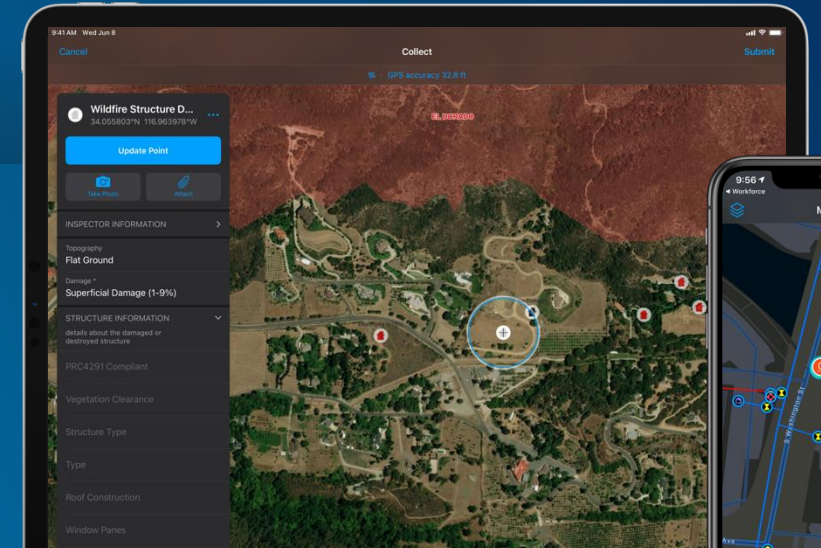
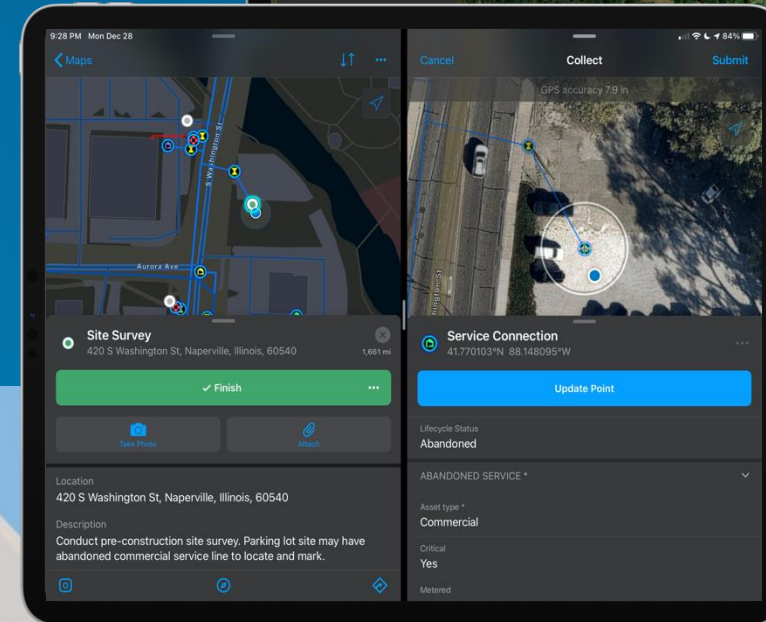
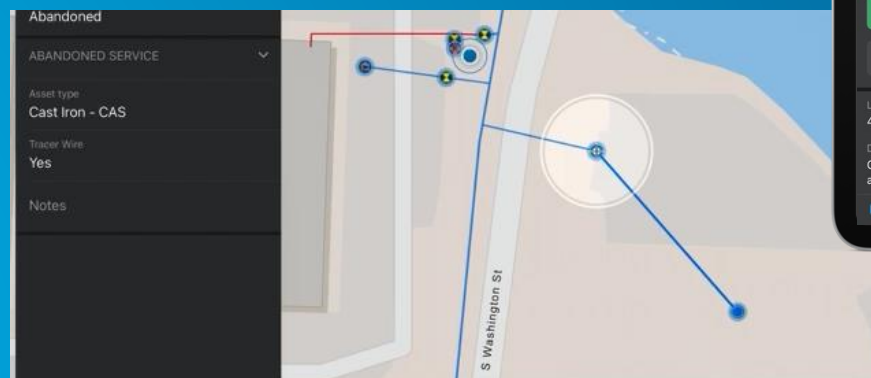




ArcGIS Field Maps | iOS Specific Features

Several Field Maps features unique to iOS devices include:

- Sign in with Apple
- Dark Mode support
- Split View on iPad
- Scribble support on iPad
- Apple Watch support for location tracking





Benefits

- Easily manage devices in your organization
- Improve efficiency of app deployments
- Keep apps and data secure
- Active monitoring for malware and other threats

Field Maps capability

- Application configuration keywords
 - portalURL key/value pair
 - anonymousAccess key/value pair
- App-level VPN

The screenshot shows the 'Field Maps - Assignment' interface. On the left, there is a navigation menu with 'Application Configuration' selected. The main area is titled 'Application Configuration' and features a section for 'EMM Managed Access' with a toggle switch turned on. Below this, there is a 'Send Configuration' toggle and an 'UPLOAD XML' button. A table lists configuration keys and values:

Configuration Key	Value Type	Configuration Value
portalURL	String	https://myportal.mycompany.com/arcgis
anonymousAccess	Boolean	true





Who is it for?

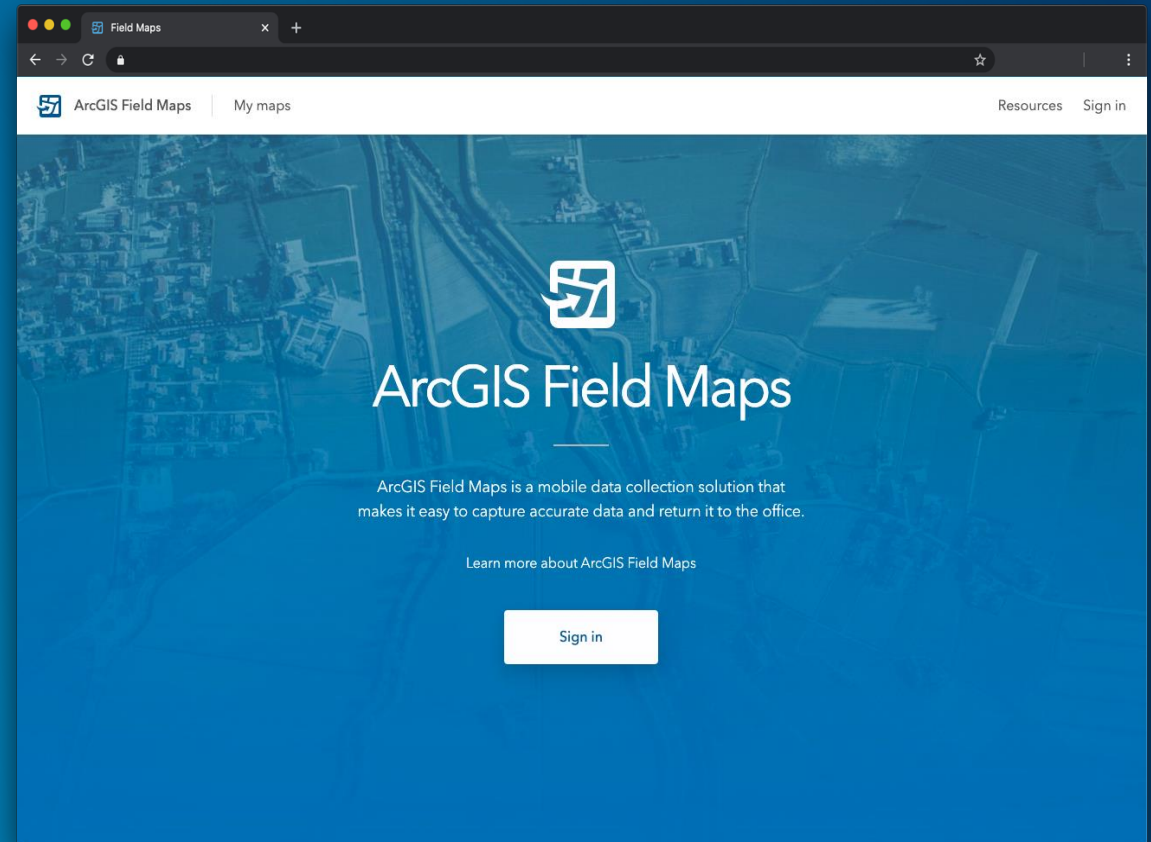
- GIS Analysts – configure and deploy maps

Requirements

- ArcGIS Online or ArcGIS Enterprise 10.8.1+
- Supported browsers (minus IE 11)
- Create privilege required
- Maps

Capabilities

- Configure map properties
- Configure your content (layers, tables)
- Manage offline experience
- Share and deploy maps





Feature Templates

- Unique types of features you create in a feature layer using the map or GPS
- Include a symbol, name, description, and set of values
- Configuration Capabilities
 - Order Feature Templates and Types
 - Alter name and description
 - Apply default values per template
 - Delete templates
 - Duplicate templates

The screenshot displays the ArcGIS Field Maps interface for a map titled "El Dorado Fire - Templates" with a feature layer named "Damage Assessments". The interface is divided into several sections:

- Layers:** A sidebar on the left showing the "Damage Assessments" layer selected.
- Templates:** A central panel titled "Form" showing a list of feature templates. Each template includes a name, a symbol, and a percentage range:
 - Destroyed (>75%)
 - No Damage
 - Superficial Damage (1-9%)
 - Minor Damage (10-25%)
 - Moderate Damage (26-50%)
 - Major Damage (51-75%)
- Properties:** A panel on the right showing configuration options for the selected template, including "Display name", "Description", "Default Values", and "Review Status".

A blue arrow points from the text "Feature templates" to the list of templates in the "Templates" panel. Another blue arrow points from the same text to a small inset map showing a red square symbol on a green field, representing the "Destroyed (>75%)" template.



Smart forms

- New way to create and edit attributes in ArcGIS
 - Included in the [web map specification](#)
 - Supported in Map Viewer Beta
- Simplifies field editing experience
- Design experience in Field Maps web app

Key capabilities

- Use groups to organize fields
- Apply conditional visibility to fields
- Format your form and it's fields
- Qualify required and read-only fields

The screenshot displays the ArcGIS Field Maps web interface for a 'Hydrant Inspections' form. The interface is organized into several panels:

- Layers Panel:** Shows 'Hydrants' as an editable layer.
- Main Form:** Contains the following sections:
 - Inspection Information:** Fields for 'Inspector' and 'Inspection Date Time'.
 - Hydrant Flush:** Fields for 'Flush Required', 'Pressure (PSI)', 'Flow Duration', and 'Flow Rate'.
 - Hydrant Maintenance Inspection:** Fields for 'Paint Required', 'Lubrication Required', 'Chains Required', and 'Greased'.
- Properties Panel:** Shows 'Formatting' and 'Conditional visibility' options.

A smartphone in the foreground displays the mobile version of the form, showing a 'Hydrant Inspection Number' field and a 'Collect' button.

Much more to come in future phased releases...



Manage Offline Map Capabilities

- Enable/Disable offline mode
- Diagnose and fix map layer issues
- Create and manage offline map areas
- Adjust delivery of features and attachments
- Reference offline basemaps

Enable offline mode

Layers

A layer in this map needs to be updated to enable offline mode

- > Editable layers
- ✓ Reference layers ¹
 - ✗ Fire Perimeter Sync is not enabled.
- > Basemap

Enable sync
Open web map
View item details

Manage areas

Map Areas

Filter Map Areas

+ Create new area

- Forest Falls
- Oak Glenn

10:31

Maps El Dorado Fire - Templates

Map Areas

- Oak Glenn 116.7 MB
- Forest Falls 121.9 MB

Features and attachment delivery

Editable features

- Device will download and get updates to features and attachments.
- Device will download and get updates for features only.
- Device will never download and get updates for features.

Read-only features

- Device will download and get updates for features and attachments.
- Device will download and get updates for features only.

Use a tile package for the offline basemap

- Device will use the basemap defined by the web map.
- Device will use a tile package it already has.

Package filename

VectorTopo.vtpk

Enter the filename of the package on your device.



- Field Maps Mobile App Final release (**Released Nov 2020**)

- Mobile app only release
- Supported with ArcGIS Enterprise 10.6.1+
- Includes capabilities of:



Collector



Explorer



Tracker

- Field Maps Web App Final release (**Released Dec 2020 for ArcGIS Online, Jan 2021 for Enterprise**)

- Simplify field deployments
- Smart forms capability officially released
- Additional mobile updates for location tracking, more





External Product Content

- [Product page](#) and [resources page](#)
- [Blog articles](#)
- [Guides](#)
 - [Migration guide](#), [Offline guide](#)
- [Learn Pathways](#)
 - [Try ArcGIS Field Maps](#)
- [YouTube Playlist](#)



[Article](#)



5 things to try in Field Maps

ArcGIS Field Maps offers a variety of features for working with maps in the field. Check out these five capabilities to get started.

[Read this article](#)

[Article](#)



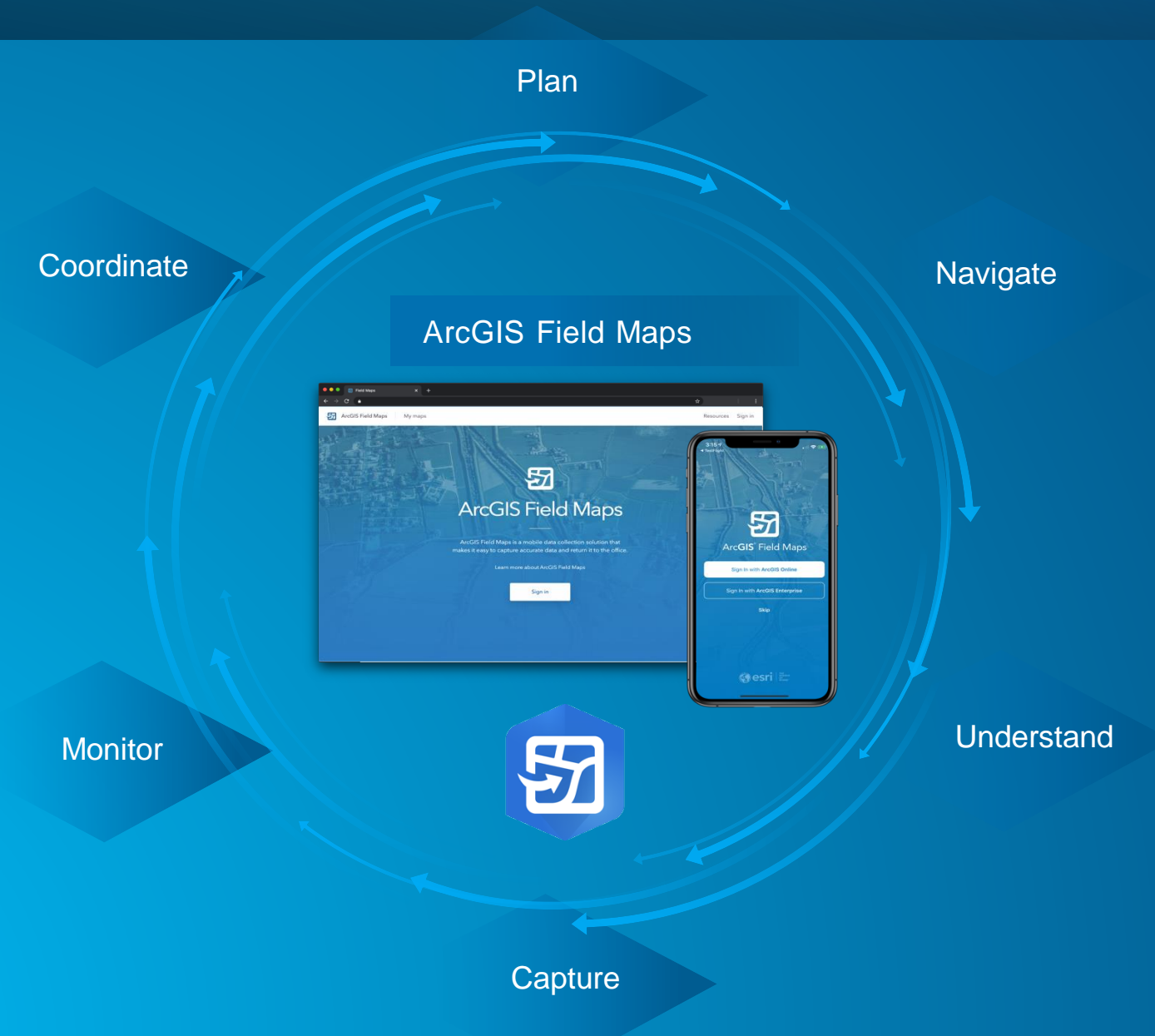
Migrate to ArcGIS Field Maps

Resources for migrating to ArcGIS Field Maps from ArcGIS Collector, ArcGIS Explorer, and ArcGIS Tracker.

[Read this article →](#)

[Article](#)

Field Operations | ArcGIS Field Maps and specialized apps...



Specialized Apps

- ArcGIS Survey123
- ArcGIS QuickCapture
- ArcGIS Mission Responder
- ArcGIS Indoors
- ArcGIS Earth





ArcGIS Field Maps | 2021 Product Pipeline

- More Smart form capabilities
 - Additional Input types (barcode scanner, radio buttons, more)
 - Inline relationship classes, inline attachments
 - Calculated attribute values, contingent values, attribute rules
- Map creation and configuration
 - Creating maps using templates
 - Map settings (collection, location tracking)
 - Additional form authoring capabilities (natural language expression builder for conditional visibility)
 - Usability improvements (bulk update, more)
- Location tracking enhancements
 - Require tracking be turned on when a map is opened
 - Dynamically annotate tracks from map settings
- Utility Network integration
 - Viewing associations and containment
 - Subtype group layer and Utility network layer support
 - Network tracing, connected branch versioning
- More High accuracy data collection support
 - Orthometric heights
 - Location profile settings
- Indoor mapping/positioning improvements
 - Indoor positioning, indoor editing
- Web hooks, geofencing, push notifications
- Work management
 - Inclusion of Workforce capabilities
- Navigation
 - Inclusion of offline navigation



ArcGIS Field Maps



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