ArcGIS Field Mobility Tools – What’s New?

Mike Bialousz
Understand
See what’s happening around you with maps.

Navigate
Route to your work using your roads, your GIS data – even while offline.

Plan
Use location to assign and coordinate field activities.

Coordinate
Act on real-time conditions in the field to update worker tasks.

Monitor
Know where workers are and see the progress of work in real-time.

Capture
Perform data collection and send it back to the office from anywhere.

Understand
See what’s happening around you with maps.

Field Operations | Location-enable all phases of field work
Field Operations | Location-enable all phases of field work

- **Plan**
  - Workforce for ArcGIS

- **Navigate**
  - Navigator for ArcGIS

- **Capture**
  - Collector for ArcGIS
  - Survey123 for ArcGIS
  - ArcGIS QuickCapture

- **Coordinate**
  - Workforce for ArcGIS
  - Tracker for ArcGIS
  - Explorer for ArcGIS

- **Monitor**
  - Tracker for ArcGIS
  - Operations Dashboard*

- **Understand**
  - Explorer for ArcGIS
Workforce for ArcGIS
Plan and coordinate field work

Plan and coordinate field work

Use location awareness to improve efficiency

Receive & manage field assignments
Workforce for ArcGIS

- Fuse work management into the ArcGIS platform
- Create, Prioritize and Assign Work
- Manage planned work assignments
- React and respond to unplanned work

ETL

Assign work

Complete work
Workforce for ArcGIS
Dispatcher

- Create new work assignments
  - By geocode
  - Using the map
  - From features
  - Automatically
- Assign, re-assign and cancel work
  - Individually
  - In bulk
- Filter and sort assignments
- View all mobile workers
Workforce for ArcGIS

Field Worker

- View and complete work assignments
- Organize your work list
- Receive notifications
- Set your working status
- Add and edit notes
- View referenced attachments
Workforce for ArcGIS
Plan and coordinate field work

- Manage To-Do list, report location and work status
- Navigate directly to your work
- Capture and update data:
  - Map: Collector for ArcGIS
  - Form: Survey123 for ArcGIS
- Complete field work
Navigator for ArcGIS
Route your field workforce to where it needs to go

Find assets and navigate to them while **offline**

Use your own maps, asset inventory, and custom roads

Traverse **pre-planned routes** for maximum efficiency

[Download on the App Store](#)
[Get it on Google Play](#)
Explorer for ArcGIS
Maps at your fingertips

View your maps anywhere
Easily find field assets
Create and share notes on-the-go

Understand
See what’s happening around you with maps

Download on the
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JUST SEARCH FOR “EXPLORER FOR ARCGIS” IN THE MICROSOFT STORE
Explorer for ArcGIS
Maps at your fingertips

Work with your maps, connected or disconnected

web maps

mobile map packages
Explorer for ArcGIS
Maps at your fingertips

What can it do?

1. Basemaps
2. Bookmarks
3. Search
4. Layers
5. Measure
6. Compass mode
Explorer for ArcGIS
Maps at your fingertips

What else can it do?

1. Create and Share Markup

2. Work offline
   - Popups
   - Attachments
   - Search / locators
Collector for ArcGIS
Accurate data collection made easy

Efficient data collection

Works anywhere, anytime

High accuracy location capture

Capture
Perform data collection and send it back to the office from anywhere
Collector for ArcGIS – Aurora Release

- **Status**
  - iOS released
  - Android: currently beta 2

- **Themes**
  - Better maps
  - Improved user experience
  - Enhanced collect experience
  - More offline options
  - Several new capabilities
GPS/GNSS Receiver Compatibility
Collector for ArcGIS
Accurate data collection made easy

Just Released!
• Collector in line with Collector Classic
• Referenced basemaps
• Using the Files app
• Capture offset locations
• Related records options
• New transformations, more…

What’s Coming?
• Android support for new generation of Collector
• Simplifying field deployments
• Introducing support for Smart Forms
Survey123 for ArcGIS
Location-aware smart forms

Sophisticated smart form capabilities
Simple data collection experience
Web & Native

Capture
Perform data collection and send it back to the office from anywhere

Windows | Android | iOS | HTML | Download on the App Store | GET IT ON Google Play
3.4 Editing from a webform
3.5 Custom Feature Report
• Add text and logos to your photos:
  • Form data (Job ID, Asset ID, Work ID, Comments, Address…)
  • Date and Time
  • Location (USNG, MGRS, DMS, DDMS…)
  • Logo

• Placement and style:
  • Font color, style and size
  • Location within the photo

3.5 Photo Watermarks
3.6 Polygons and Lines

• Capture new and edit existing polylines and polygons:
  • Screen digitizing
  • Streaming and GPS tools
  • Manual coordinate input

• Extended smart form support:
  • Area and Distance calculations
  • Create geometries through XLSForm expressions
3.6 Map Enhancements

- **More supported map formats:**
  - Vector Tiles
  - Mobile Map Packages
  - Web Maps

- **Enhanced map configuration:**
  - Unique for every map in your smart form
  - Streamlined offline workflows:
    - Pre-planned workflows (Offline map areas)
    - Linked maps
• **Survey123 add-ins (Why?)**
  - Custom functionality
  - Guided user workflows
  - Background add-ins

• **Survey123 add-ins (How?)**
  - Write using JavaScript/QML syntax (from Visual Studio Code, Qt Creator…)
  - Leverage:
    - Survey123 extensibility API
    - AppStudio framework
    - ArcGIS Runtime
  - Distribute through your organization:
    - ArcGIS Sharing
ArcGIS QuickCapture
Rapid data collection

A “big button” mobile app

Simplest way to capture field observations

At-speed data collection workflows

Capture
Perform data collection and send it back to the office from anywhere
An efficient data collection solution for at-speed and rapid data collection workflows
External GNSS receiver support:

Use for:
  Increased accuracy
  Access to GNSS metadata (through variables)
  Higher frequency data collection

Add receiver by:
  Bluetooth
  USB (Windows Only)
  Network (Windows Only)

Supported receivers:
  Bad Elf – EOS – Leica - Trimble (R1, R2, R10-2)* - Garmin GLO*
ArcGIS QuickCapture Designer

A web tool to design ArcGIS QuickCapture projects ([https://quickcapture.arcgis.com](https://quickcapture.arcgis.com))
Tracker for ArcGIS

Know what happens in the field

Share your location

Know where everyone is

Detect Patterns

Monitor
Know where workers are and see the progress of work in real-time
Tracker for ArcGIS

Key Components

Tracker Mobile app (iOS, Android)
- Simple, schedule-driven tracking experience
- Supports offline use
- Optimized for low battery consumption
- Requires an premium add-on license

Track Viewer Web app
- Display and manage users and their location history
- See only the users that you have access to (Feature Service views, OBAC)

New Organizational Capability
- Enable location tracking in their organization
- Single service for storing and managing location tracks
- Requires the spatiotemporal big data store
Tracker for ArcGIS

Mobile app

• Viewing Tracks on device
  - Tracks displayed as lines with direction
  - Tap on tracks to see details
  - View up to last 72 hours

• Tracker app writes tracks
  - Other ArcGIS Field Apps read tracks

• 3rd Party apps consume tracking service
Tracker for ArcGIS
Analyzing Location Tracks

Linear heat maps

3D Visualizations

Aggregation

Incident Detection
Field Operations | How can you enable Field Operations?

Viewer

Editor

Field Worker

Creator

GIS Professional

Explorer is available to all user types, including Viewers

Includes Workforce, Collector, Survey123, and QuickCapture

Viewing  Editing  Authoring

Available in ArcGIS Online and Enterprise
Field Operations | How can you enable Field Operations?

Field Worker User Type

Add premium apps as needed

Comes with Workforce, Collector, Survey123, and QuickCapture
Can use Explorer

Navigator
Tracker
Questions
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