What is mobile GIS?

*Extends the reach of ArcGIS from the office to the field*

- With a mobile GIS solution you can
  - Carry your maps to the field
  - Collect and update geographic information
  - Track and geo-collaborate
What are the benefits of mobile GIS?

*Leverages the investment of your enterprise GIS*

- Improve Efficiency and Accuracy of Field Operations
- Rapid Data Collection and Seamless Data Integration
- Replaces paper based work flows
- Helps to Make Informed and Timely Decisions
## Lightweight Applications and Runtime SDKs

Configurable COTS applications and Native ArcGIS Runtime SDKs

<table>
<thead>
<tr>
<th>Platform</th>
<th>Applications</th>
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<tr>
<td>iOS</td>
<td>ArcGIS</td>
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<tr>
<td>Android</td>
<td>ArcGIS</td>
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<tr>
<td>Windows Phone</td>
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<td>Windows Mobile</td>
<td>ArcGIS</td>
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<tr>
<td>Windows</td>
<td>ArcGIS Explorer*</td>
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<td>Linux</td>
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<th>Runtime SDK</th>
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ArcGIS on Rugged Devices

Windows and Windows Mobile Devices

- Designed for harsh field conditions
- One handed/vehicle-mounted use
- Occasionally connected workflows
- High accuracy data collection
  - GPS integration
  - Laser integration
- Replace Paper Surveys
  - Intelligent forms
  - Barcode integration

Water Facilities Mapping

Asset Maintenance/Inspection

First Responders

Land Management
ArcGIS Products for Rugged Devices

Windows and Windows Mobile Devices

ArcGIS for Windows Mobile
- Focused Mobile Applications
- Task-based, defined workflow
- High Accuracy Data Collection
- Users have little GIS training
- Scalable to large field workforce

ArcPad
- Ad-hoc Mobile Application
- High Accuracy GPS Workflow
- Targets small/mid-size org
- Users typically have GIS Training
ArcGIS for Windows Mobile

• Application
  - Rapid Deployment of Maps, Apps & Projects
  - Task-based, Workflow Driven User Experience
  - Synchronization of Data between Field & Office
  - Local Caching of Data

• Platforms
  - Windows XP, Vista, Windows 7
  - Windows Mobile
Runtime SDK and Application Framework

- Coarse-grained .NET API
- Extend COTS application
- Create focused Mobile GIS applications
- Embed ArcGIS into existing line of business applications
- Included in Setup
- Help and Samples location at the Mobile Resource Center
ArcGIS for Windows Mobile Licensing

- **ArcGIS Desktop**
  - 1 free deployment license
  - Additional packs of 5 can be purchased

- **ArcGIS Server**
  - Advanced Enterprise license (unlimited deployments)
  - Standard Enterprise license (purchase 50 packs)
Starting the Application

- Deployment of projects
  - Local
  - On-Premise Server
  - Cloud (ArcGIS.com)
- Field Crew tracking
  - User sign in
  - Silent logging of field crew GPS positions by date/time interval
  - Locate field crew members and last time checked in, notes
The Map

- **Operational layers**
  - Used for querying and editing data in the field
  - Synchronized with a GIS server

- **Basemap layers**
  - Provide supportive background data and referencing where the user is located

- **Leverage GPS/GNSS receivers by consuming NMEA Output**
Data Collection

• Many supported layer types
  - Feature, Raster, Annotation, Geometric Networks (as simple features)

• Fields types of a feature class define its behavior
  - Subtypes
  - Domains
  - Raster
  - Dates

• Versioning, replication, ETL
ArcGIS for Windows Tablet Demo
Creating Mobile Projects

- Create and Manage Field Applications
- Publish and share maps & content
  - Local
  - On-Premise Server
  - Cloud (ArcGIS.com)
- Provision Applications and data to field devices.
Deployment & Field Workflow - Server

ArcGIS Desktop
- Author maps
- Build data models

ArcGIS Online

ArcGIS Server

Publish Operational Map
- Enable Mobile Access

Create Mobile Projects
- Mash-up Map
- Configure Tasks

Download Maps
Upload Changes

Identify Base Maps
- Build Raster/Vector caches

Collection/Inspection
- View Maps
- Create/Edit Data
- Track/Collaborate

Create Mobile Projects
- Mash-up Map
- Configure Tasks
Roadmap
• Focused Quality Updates
• Latest Release Available on Customer Care Portal
  - Build 2500 NIM List on Mobile Blog Site (16 issues resolved)
• Does not require uninstall/re-install of desktop software
• List of 21 issues queued for 2525 update
Whats New in 10.1?

Simplified workflows, improved project deployment

• **Simplified Data Collection Experience**
  - Tap on Shape attribute to collect
  - Less taps (Map, Averaging, Streaming on same page)
  - Repeat collection optimizes workflow

• **Editing of Existing Feature Geometry**
  - Recollect the shape
  - Extend linear features
  - Replace portions of lines or polygons
  - Delete portions of lines or polygons

• **Support for Geodatabase Attachments**
  - Capture multiple photos for a feature
  - Attach documents/files to a feature
  - Pull attachments for offline use
Whats New in 10.1?

Simplified workflows, improved project deployment

GPS Configuration and Display
- First time use configuration of GPS settings
- Configurable “heads up” GPS display on all Map pages
  (Lat/Lon, number of satellites, PDOP, bearing, moving direction)

Waypoint Navigation
- “As the crow flies” of GPS-based navigation
  Displays location, bearing, distance, direction, speed, arrival time
- Navigate to location on map or a feature

Publishing and Deployment
- Desktop workflow improvements
  - Package data (mobile cache and base map) into wmpk
  - Package project extensions into wmpk
- Integrated Service Publishing Experience for Mobile Services
  - Find errors and warnings before publishing
- Improved ArcGIS Online integration within Mobile Project Center
  Support for My Content
  Sharing maps in Groups
User Conference

What to do and see…
Sessions To Attend

• ArcGIS for Windows Mobile – Developing Apps
  - Thursday - 3:15pm - 4:30pm

• Demo Theaters
  - Tuesday - 2:30pm – 6:00pm
  - Wednesday - 9:00am – 12:30pm

• Try ArcGIS Mobile Live!
  - Tuesday/Wednesday - 2:00pm - 4:00pm
  - Thursday - 10:00am - 12:00pm

• Mobile Special Interest Group Meeting
  - Tuesday 12:00pm - 1:00pm 23b
Questions?