Trimble GeoCollector for ArcGIS: An Introduction

Morgan Zhang (Esri), Matthew Morris (Trimble)

Overview

- Introduction to mobile GIS
- Overview of ArcGIS for Windows Mobile
- Overview of Trimble Positions software suite
- Demos

Introduction to mobile GIS

Morgan Zhang (Esri)

Mobile GIS

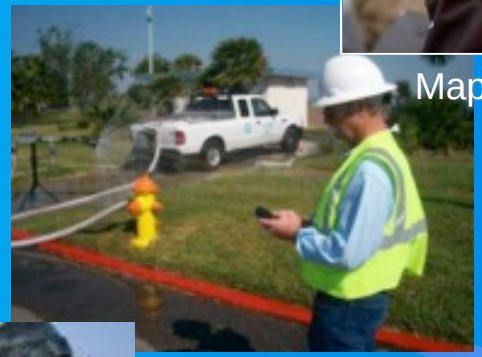
Extends the reach of ArcGIS from the office to the field

Key benefits

- Improve efficiency
- Increase accuracy
- Seamless flow of information
- Make more informed and timely decisions

Map infrastructure

Replace paper map books



Inspect Assets

Respond to events

Esri Strategy toward Mobility

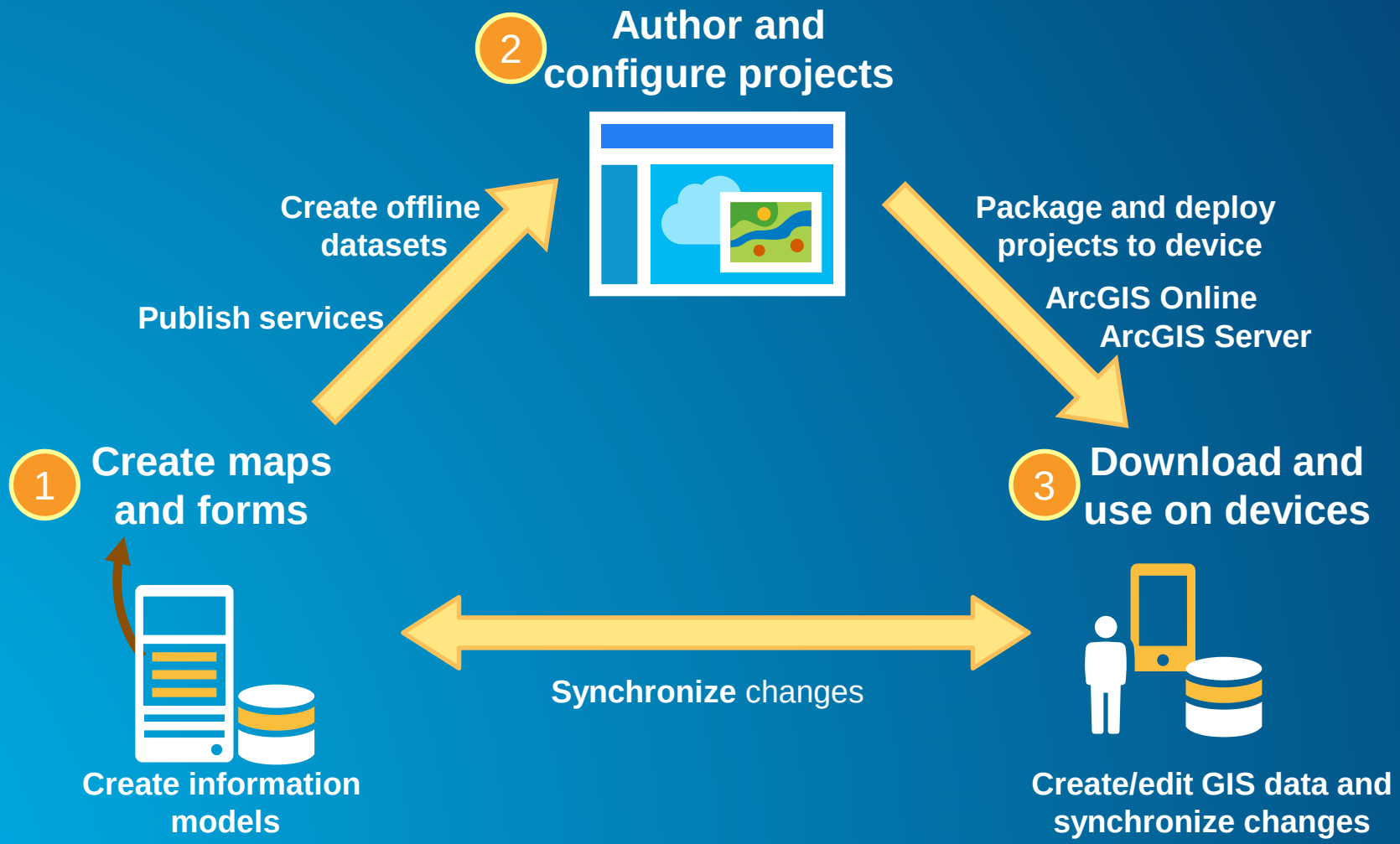
- Extend the reach of Web GIS
- Platform agnostic
- Native apps/Web apps
- Developer Toolkits for partners

ArcGIS for Windows Mobile

Windows and Windows Mobile devices

- **Ready-to-use field GIS apps**
  - Rapid deployment of maps, apps, and projects
  - Task-based, workflow-driven user experience
  - Supports fully disconnected workflows
  - Synchronization of data between field and office
  - Scalable to large field workforce with little GIS training
- **ArcGIS Runtime SDK for Windows Mobile**
  - Coarse-grained .NET API
  - Extend the COTS application
  - Embed ArcGIS into existing line of business apps

Windows Mobile workflow and capabilities



Trimble® Positions™ software suite

Matthew Morris (Trimble)

Trimble Positions

Extends ArcGIS for Windows Mobile and ArcPad workflows for high-accuracy data collection

- Trimble Positions Mobile extension
  - Includes Mobile Project Center extension
- Trimble Positions ArcPad extension
- Trimble Positions Desktop add-in
- Trimble Positions Toolkit
  - To extend custom ArcGIS Runtime SDK for Windows Mobile applications

Trimble Positions Value

- Allows field workers to be productive through full support for the ArcGIS for Windows Mobile task-driven workflow
  - Supports multiple workflows – ArcGIS for Desktop, ArcGIS for Server, ArcGIS Online
- Ensures data quality through accuracy-based logging and the transfer of GNSS metadata back to geodatabase attributes
- Minimizes errors by eliminating complex import/export steps and the need to switch between different applications for data management
- Turns ArcGIS for Windows Mobile into a 3D data collection solution (points, lines, polygons)

High-Accuracy Hardware

Support for both post-processed and real-time (e.g., VRS) workflows

Device	Accuracy (best) *as per published device specs*	
Geo 7X H-Star / Geo XH / Pro 6H	10 cm	
Geo 7X / Geo XT / Pro 6T	50 cm	
Geo 5T / R1	< 1 m	
Juno 5	1 – 2 m	
Juno 3 / Nomad 900	1 – 3 m	

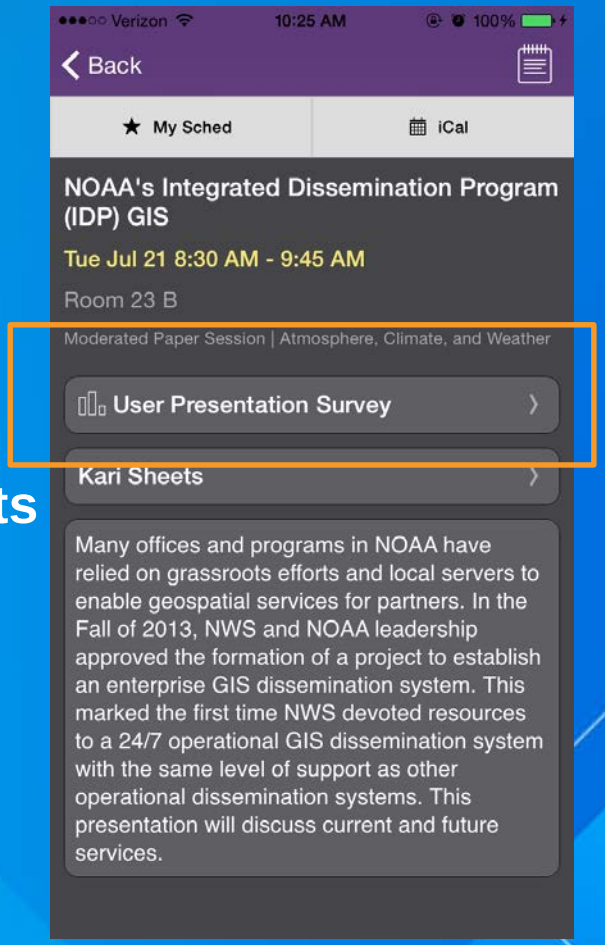
Allowing users of Trimble handhelds and receivers to achieve the full accuracy of the hardware

Functionality Highlights

- Utilizes existing Esri synchronization paths
- Metadata transferred to feature class attributes (e.g., accuracy)
- Accuracy-based logging (i.e., accuracy thresholds by feature type)
- High-accuracy elevations (antenna type & height, geoid models)
- Simplified post-processing workflow
  - Can be more reliable and less expensive than realtime-only workflows
- Includes stand-alone GNSS session post-processor
- Flexible licensing
  - Concurrent and single-use license concepts for Trimble Positions Desktop add-in and Trimble Positions Mobile extension
- Also provides ArcMap integration for other Trimble field data collection software

Thank you…

- Please fill out the session survey in your mobile app
- Select in the Mobile App
  - Use the Search Feature to quickly find this title Trimble GeoCollector for ArcGIS: An Introduction
- Click “Demo Theater Survey”
- Answer a few short questions and enter any comments



Understanding our world.