



Tips & Tricks using Mobile Devices with ArcPad and ArcGIS for Windows Mobile

Kevin Burke and Juan Luera

Agenda

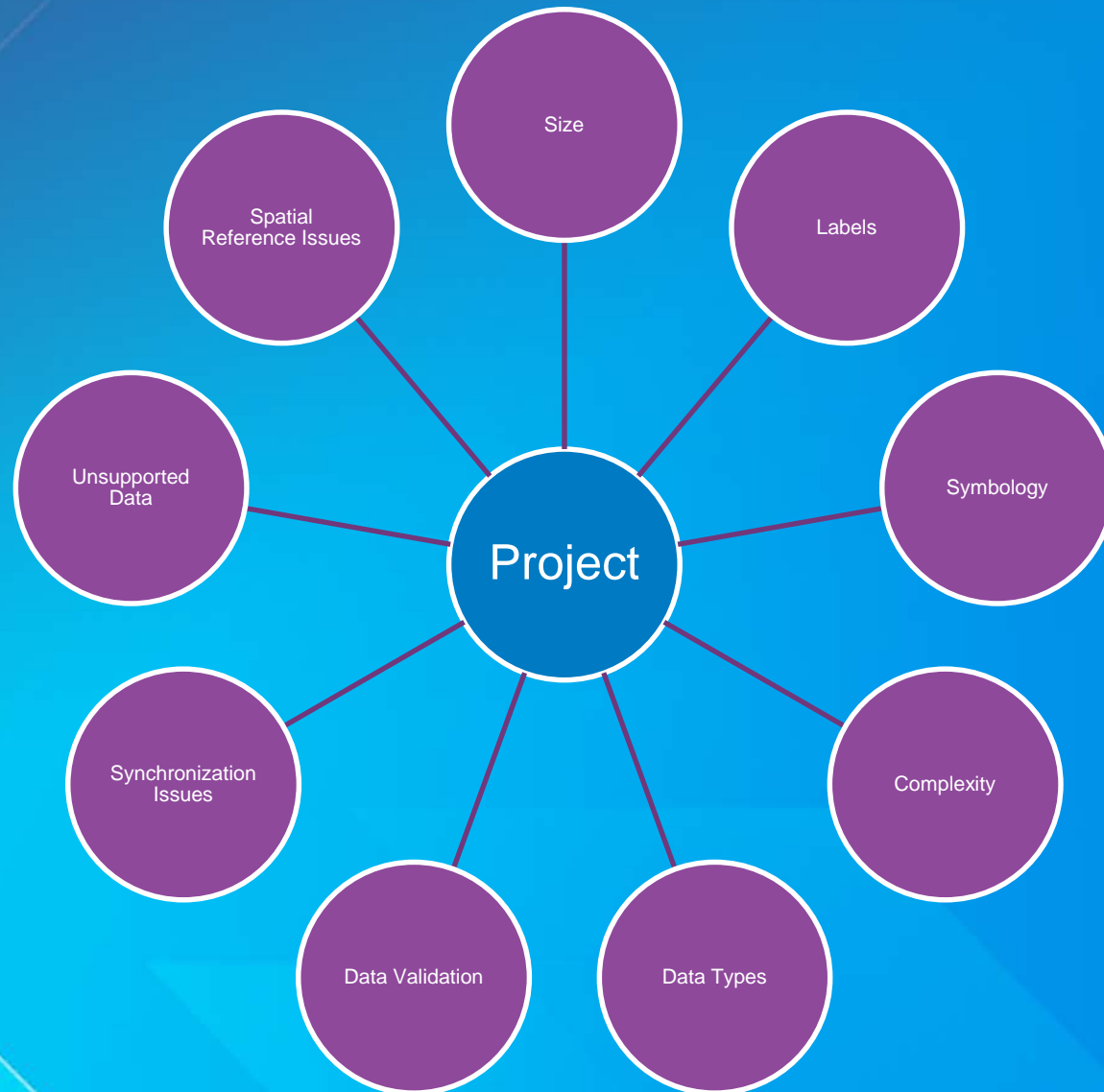
- Projects
- Server Connections
- GPS Connections
- General Tips & Tricks



Projects

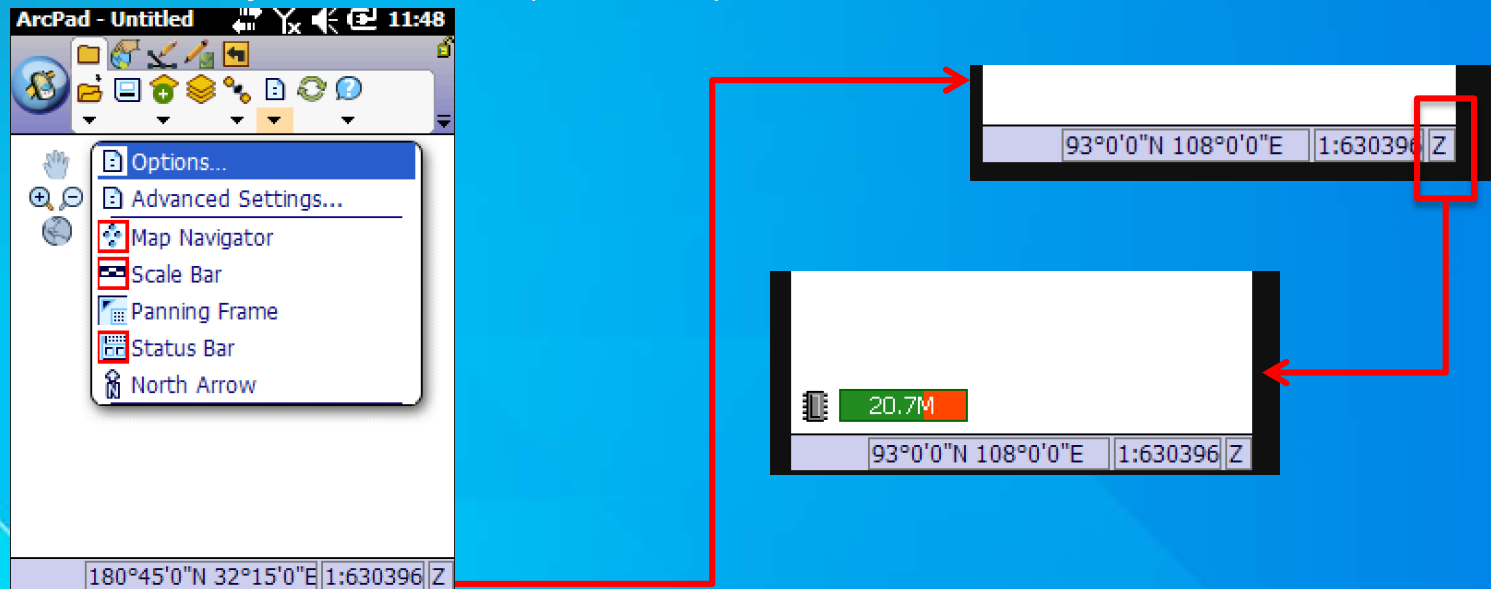


Projects



Projects

- Low Memory Issues
 - Windows Mobile Operating System – Installed applications are only allocated 32 mb of RAM
 - Large projects may cause low memory warnings or the project will not open.
- How to determine the available memory?
 - Utilize the Memory Indicator (ArcPad)



Projects

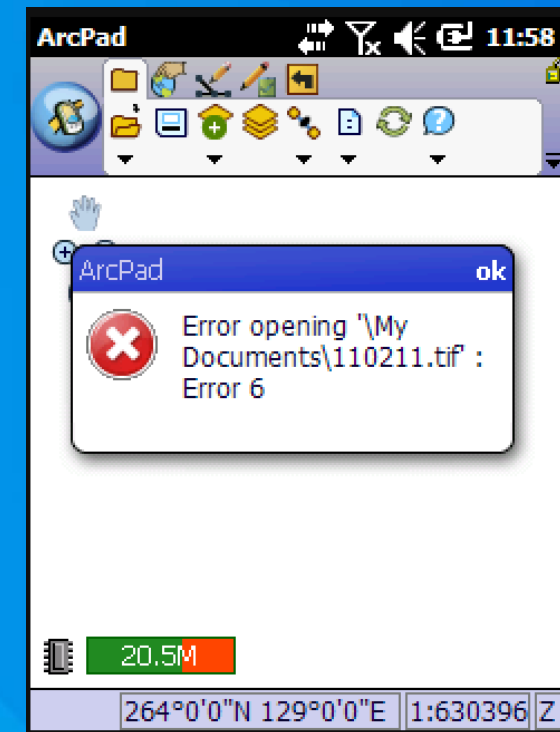
- Tips to Reduce Low Memory Issues
 - Turn off non-essential attribute table fields
 - Keep field lengths as small as possible
 - For projects with more than approximately 12 layers, create several smaller projects
 - Remove complex symbology/symbols
 - Turn labeling off when zoomed to full extent
 - Only check out essential data extent from ArcMap
 - ArcPad - Turn off all unused extensions via Advanced Settings

Projects

- Troubleshooting Editing Issues
 - Unable to edit in ArcGIS Mobile
 - Add Global ID's
 - Unable to edit in ArcPad
 - Ensure data was not checked out as background read-only data
- Troubleshooting Synchronization Issues – Services
 - Ensure mobile device has internet connection
 - Review Server Manager logs
 - Ensure server URL is fully qualified
 - Ensure that public wifi/mobile hotspot isn't being used to connect to an internal service.
 - Test by performing the synchronization in ArcPad/AGWM on the desktop PC and off the mobile GPS device.

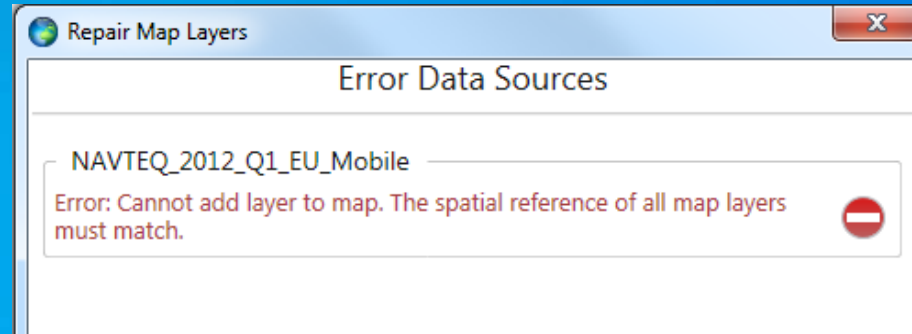
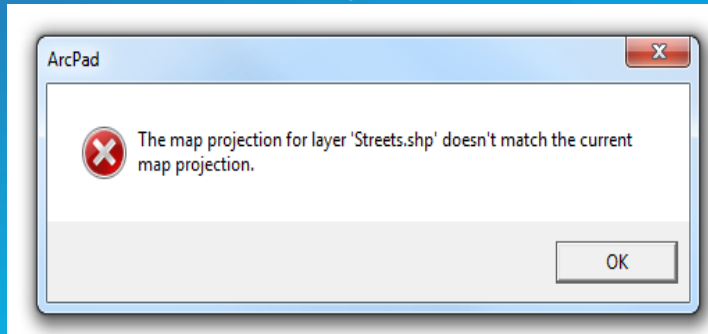
Projects

- ArcPad – Unsupported Data
 - Geometric networks
 - Feature class to feature class relationships
 - Table to table, and table to feature class relationships.
 - ArcGIS annotation layers
 - Image Services
 - SDE spatial views
 - Unsupported rasters/raster compression

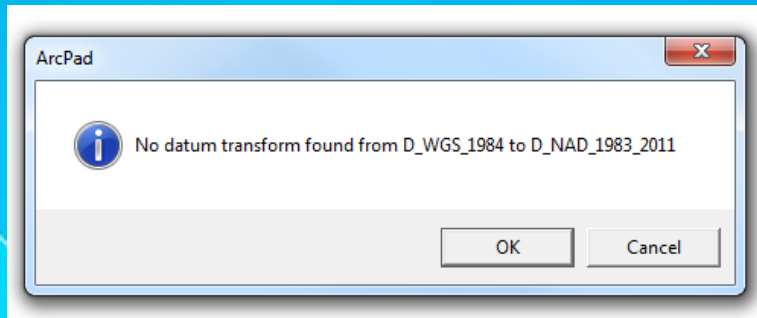


Projects

- Spatial Reference
 - Ensure added layers share the exact same spatial reference



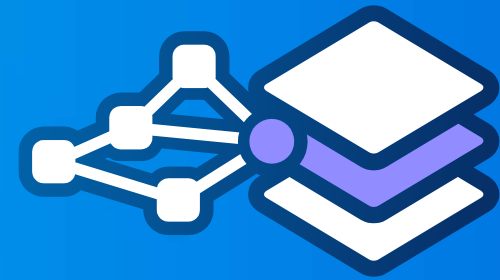
- Datum transformation error - ArcPad



Projects

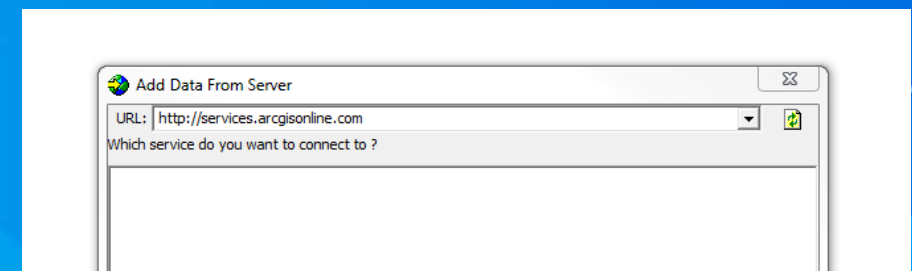
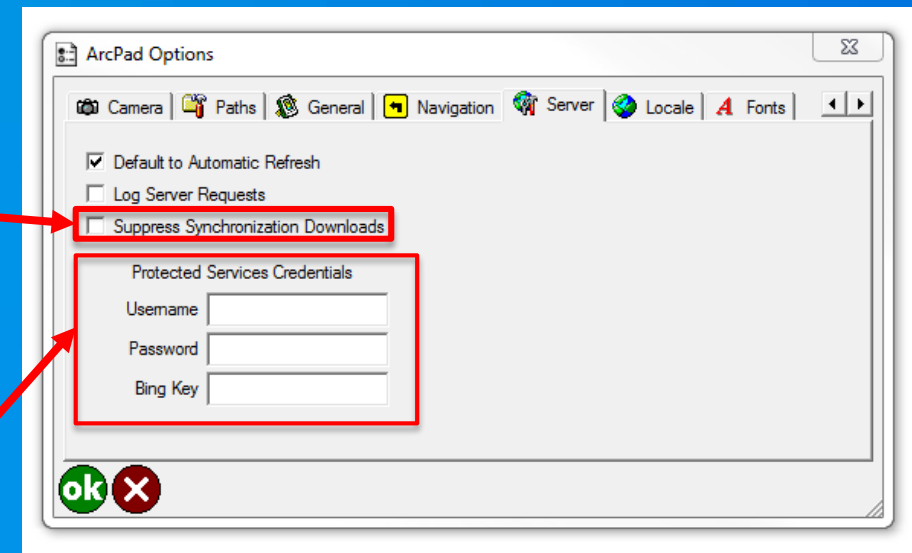
- ArcGIS for Windows Mobile – Unsupported Data
 - Representations
 - Tracking layer
 - Dimension layer
 - Coverage Annotation
 - TIN
 - WFS
 - WMS
 - Network Analyst
 - CAD data
 - Topology

Server Connections



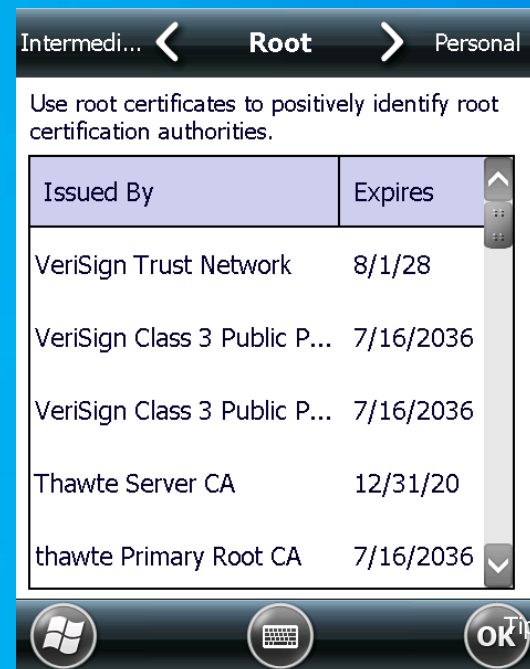
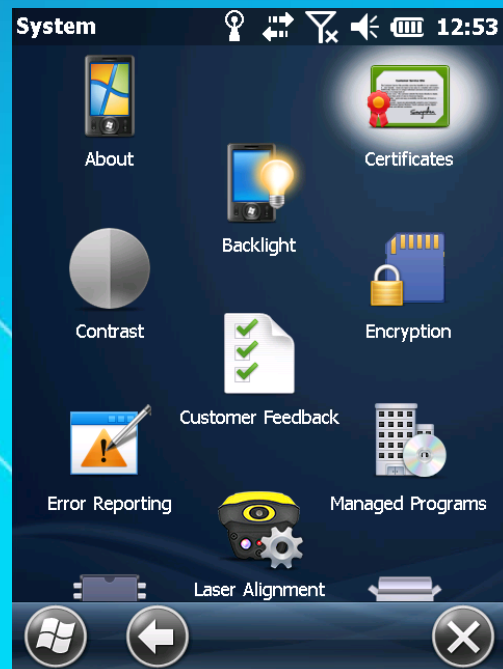
Server Connections

- ArcPad - supports hosted feature services from ArcGIS Online and feature services from ArcGIS for Server.
- ArcPad - use 'Suppress Synchronization Downloads' to restrict the synchronization process to only uploading edits when using large amounts of data.
- ArcPad - use 'Add Data From Server' for troubleshooting
 - Ensure that your ArcGIS for Server/AGOL credentials are provided in Options > Server tab



Server Connections

- ArcGIS for Windows Mobile – supports hosted feature services from ArcGIS Online and mobile services from ArcGIS for Server (Mobile Data Access capability).
- Ensure ArcGIS for Server is configured properly to allow external access through the Web Adaptor.
- When using secured services through HTTPs, ensure the proper Sha-1 certificate is installed in the Root store on the Windows Mobile device.



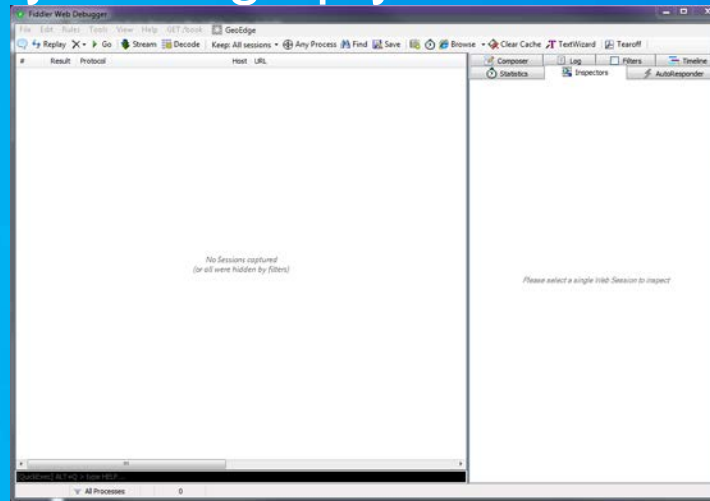
Server Connections

- Note: Windows Mobile and Windows Embedded Handheld operating systems, do not support Sha-2 certificates.

| | |
|--------------------------|---------|
| Signature algorithm | sha1RSA |
| Signature hash algorithm | sha1 |

| | |
|--------------------------|-----------|
| Signature algorithm | sha256RSA |
| Signature hash algorithm | sha256 |

- Use Fiddler to debug services by setting up your mobile device to use your desktop PC as a proxy server.

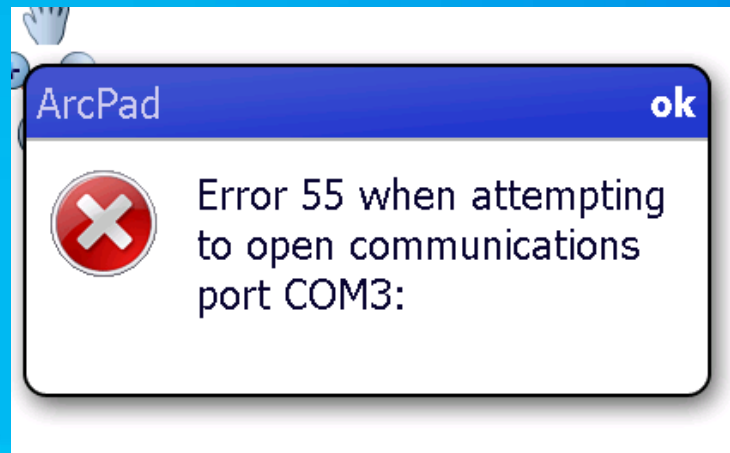
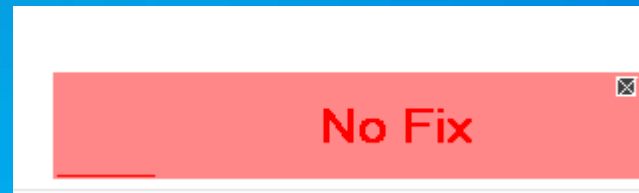
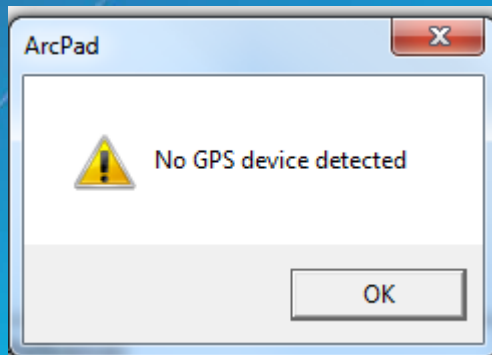


GPS Connections



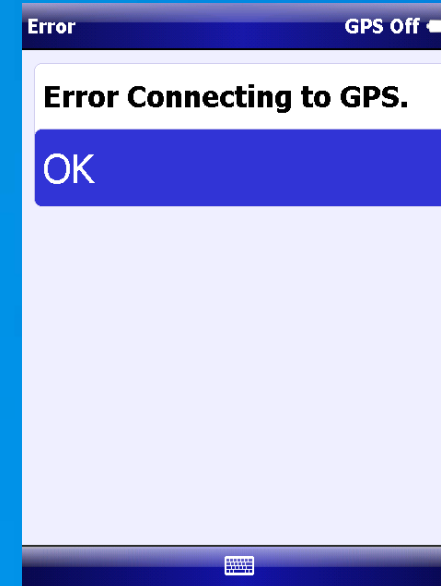
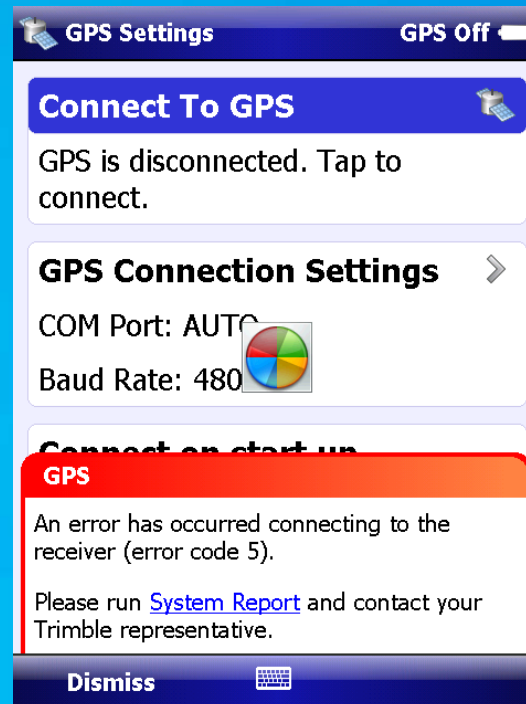
GPS Connections

- ArcPad GPS Errors and Warnings:



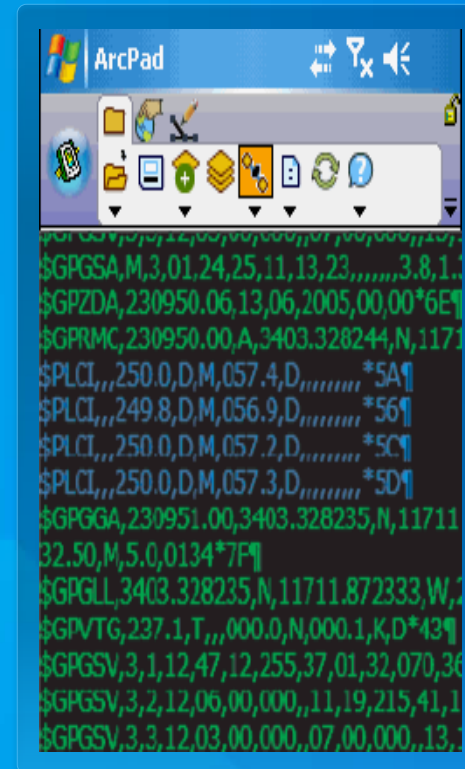
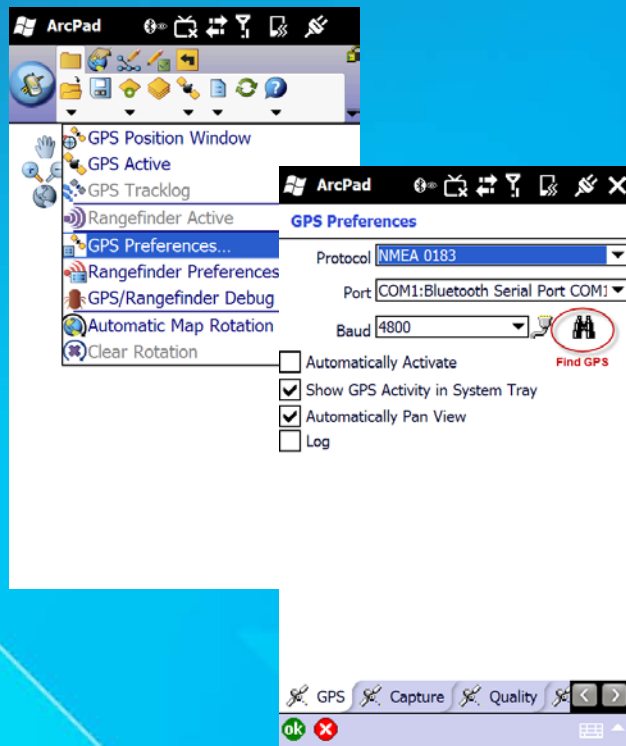
GPS Connections

- ArcGIS Mobile GPS Errors:



GPS Connections

- Troubleshooting Tips:
 - 'Find GPS' Utility – ArcPad
 - GPS/Rangefinder Debug – ArcPad

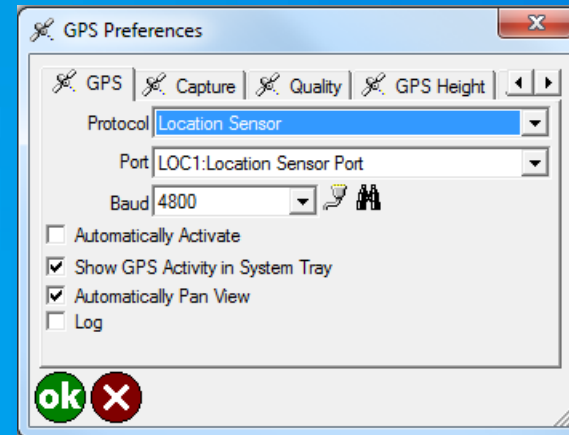


GPS Connections

- Troubleshooting Tips:

- Windows 8/8.1 support for Location Services

- ArcPad 10.2/10.2.1/10.2.2 – In GPS Preferences, use 'Location Sensor' for Protocol and use 'LOC1:Location Sensor Port' for Port.



- ArcGIS for Windows Mobile 10.1.1/10.2/10.2.1 – Uses freely available developer sample called Location API Connection Extension for AGM 10.1.1/10.2 (Windows)

- Note: This developer sample is unsupported.

GPS Connections

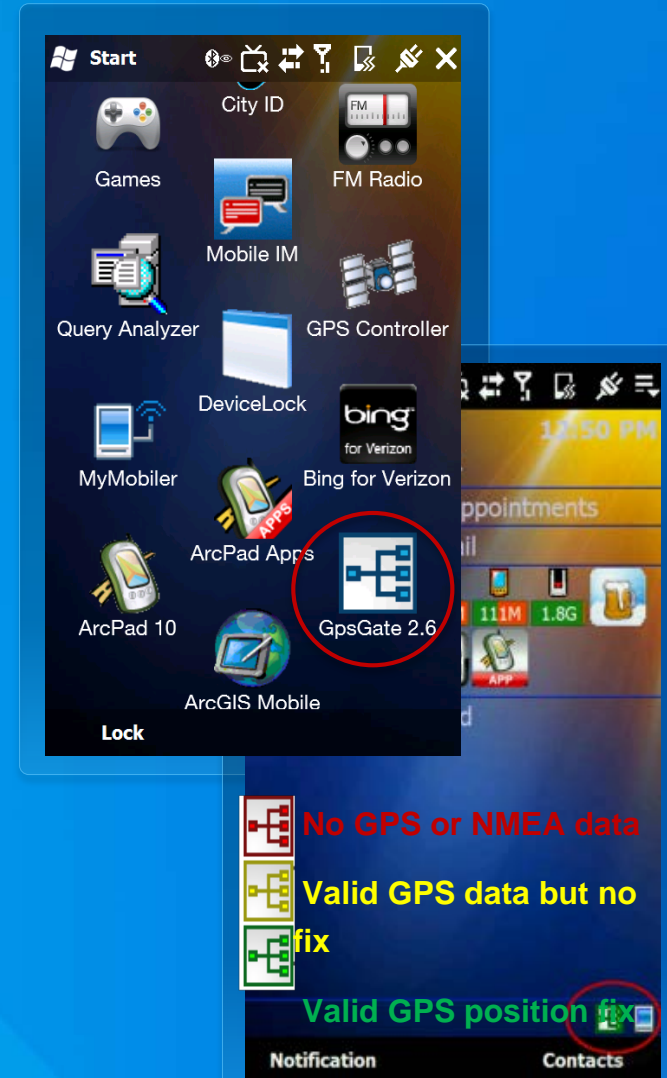
Troubleshooting Tips:

- Review devices documentation for proper Baud Rate settings
- Trimble GPS Controller
 - configure a range of Trimble GPS receivers and real-time differential correction settings, and NMEA output.



GPS Connections

- GPSgate Splitter (Express)
 - Typically used to configure COM ports for external GPS devices.
- Supports Bluetooth GPS receivers
- Supports Garmin USB GPS receivers
 - Note: Ensure device is not in Mass Storage device mode
- Share one GPS with several applications via Virtual COM ports
- GPS simulation and logging



General Tips & Tricks



General

- Reset Mobile Device
 - 3 ways to reset device:
 - Soft reset
 - Hard reset
 - Factory reset
 - Note: Factory reset deletes any installed applications and data. Backup data to SD card prior.
 - Why reset device?
 - Installation issues
 - Performance/memory issues
 - General behavior issues

General

- MyMobiler
 - Mobile device users best friend
 - View your mobile screen on your desktop PC
 - Ideal for demonstrating behaviors to your mobile support analyst in conjunction with desktop sharing application
 - Training and demos

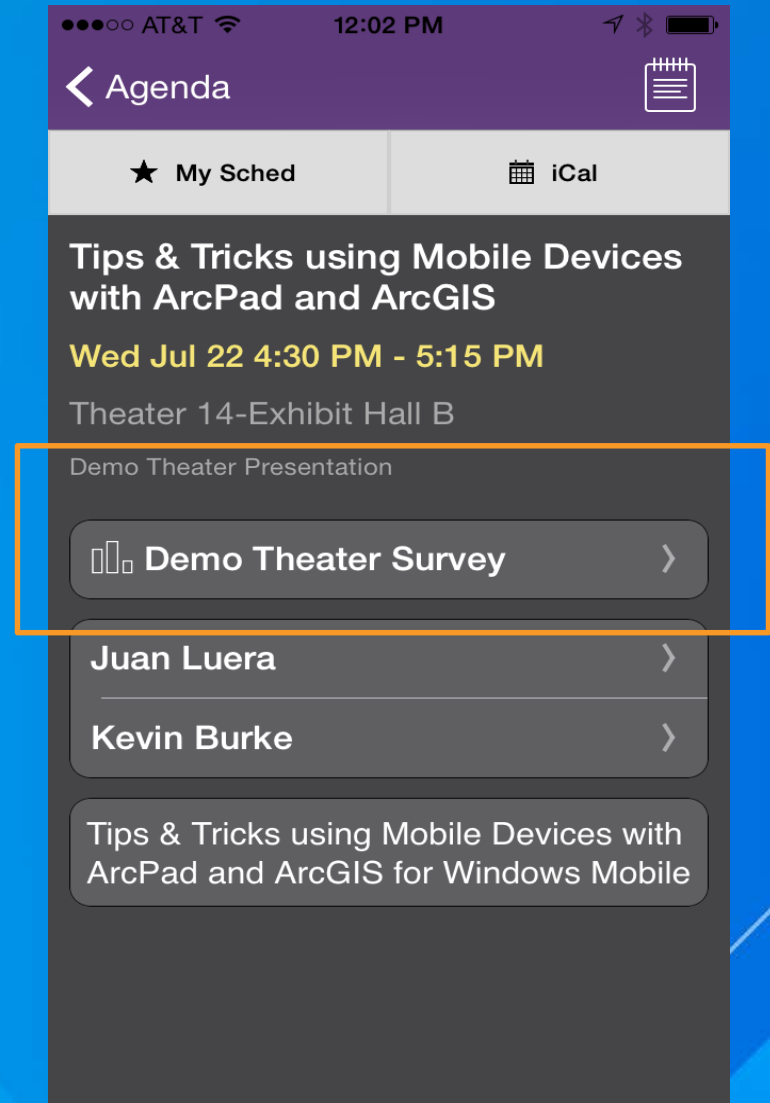




Questions?

Thank you...

- Please fill out the session survey in your mobile app
- Select **Tips & Tricks using Mobile Devices with ArcPad and ArcGIS** in the Mobile App
 - Use the Search Feature to quickly find this title
- Click “Demo Theater Survey”
- Answer a few short questions and enter any comments





Understanding our world.