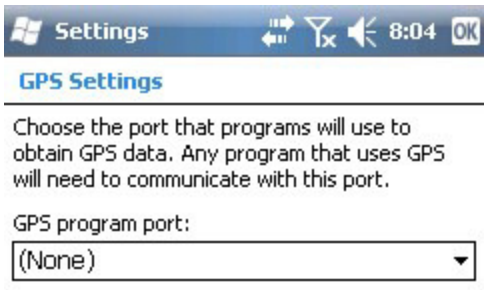
MobileMapper 100 and ArcPad 10

This application note offers assistance with the configuration of ArcPad 10 on the MobileMapper 100. It is a supplement to instruction manuals and publications that are available from Ashtech and ESRI. The ArcPad Install Guide provides information about installing ArcPad 10 on the PC and use of the ArcPad Deployment Manager.

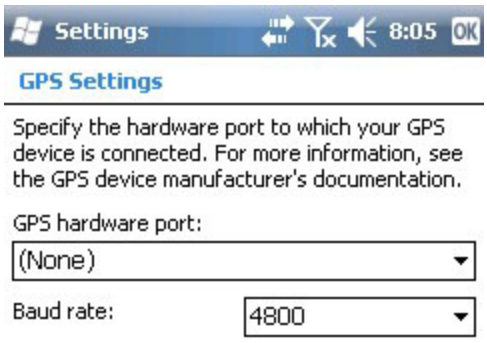
After ArcPad 10 is installed on the MobileMapper 100 click on Start and then Settings.

Tap on System

Tap on External GPS



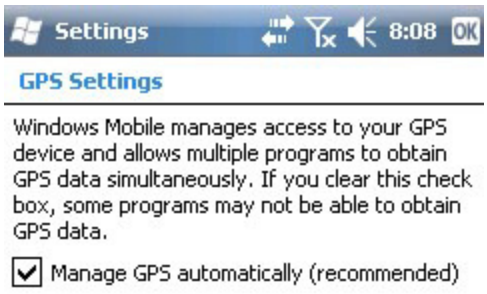
On the Programs tab choose None for the GPS program port.



On the Hardware tab:

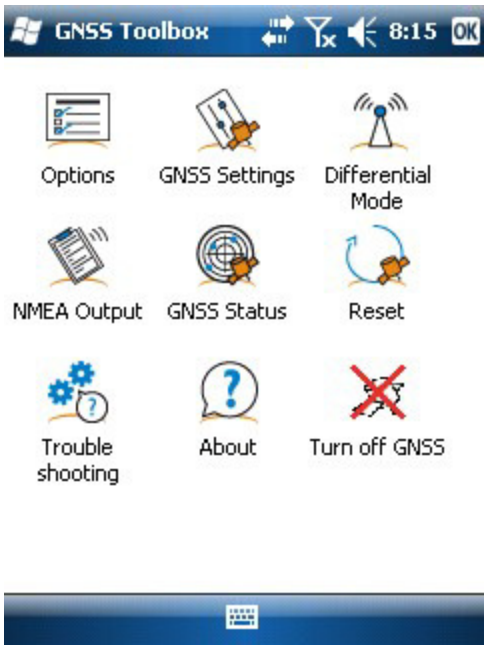
GPS Hardware port: (None)

Baud rate: 4800

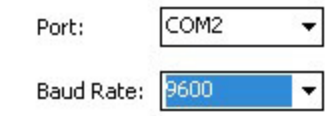


On the Access tab put a check in the box.

Click OK and X as appropriate to return to the desktop.

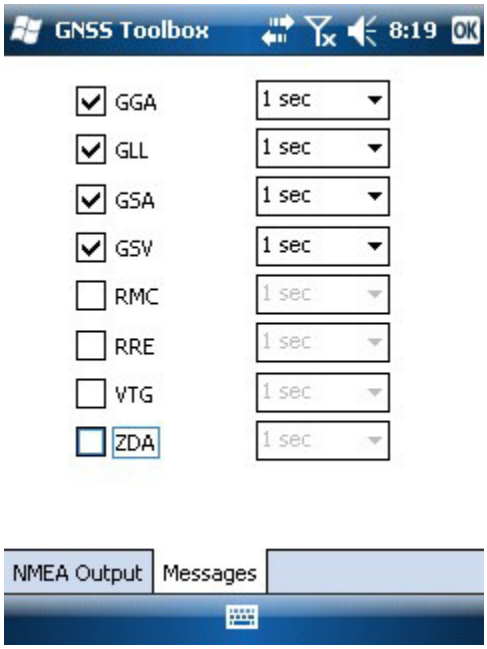


Open the GNSS Toolbox and tap NMEA Output

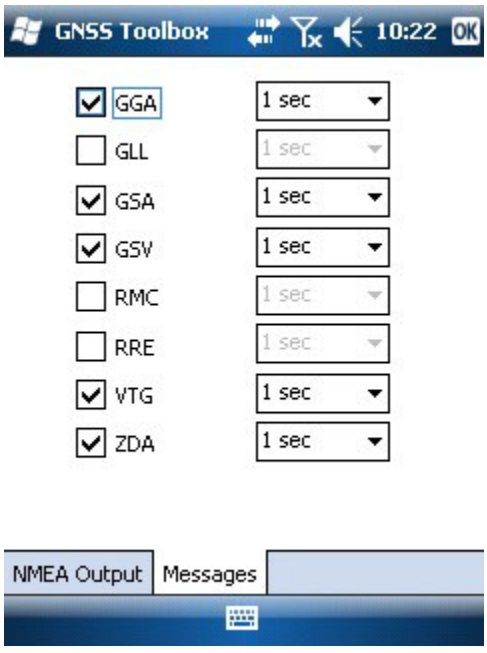


On the NMEA Output tab choose COM2 and a Baud rate of 9600

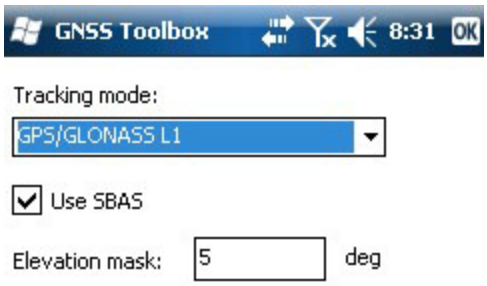
On the messages tab there are alternative choices that work. Both of the messages choices illustrated here will work with ArcPad 10. Note: Some software changes the NMEA message settings. When using a variety of software return to the NMEA messages settings and check the appropriate boxes.



This group of NMEA messages will work with ArcPad.

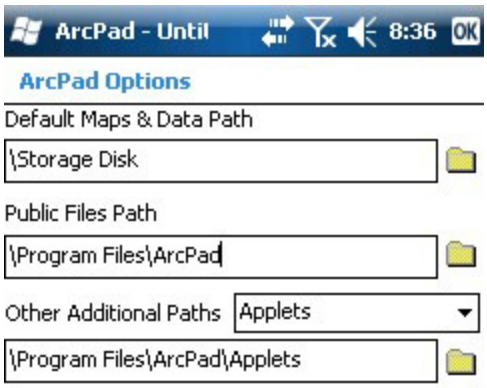


This group of NMEA messages will work with ArcPad.



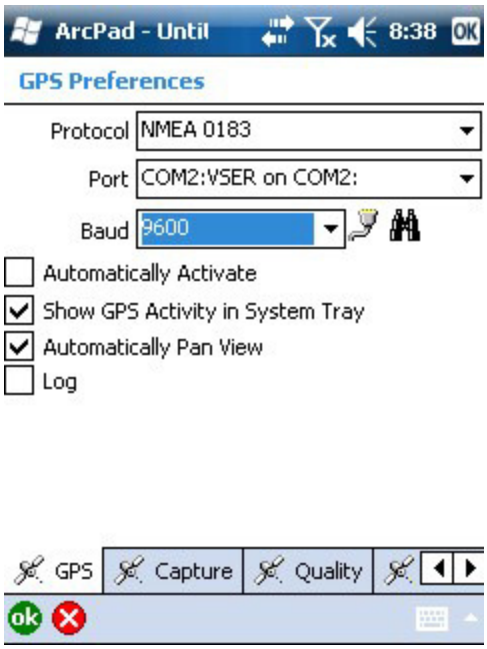
Choose GNSS Settings appropriate for the work environment and the resources and options available.

Test alternatives and use the choice that consistently provides the best results in the work environment.



In ArcPad Options set the paths.

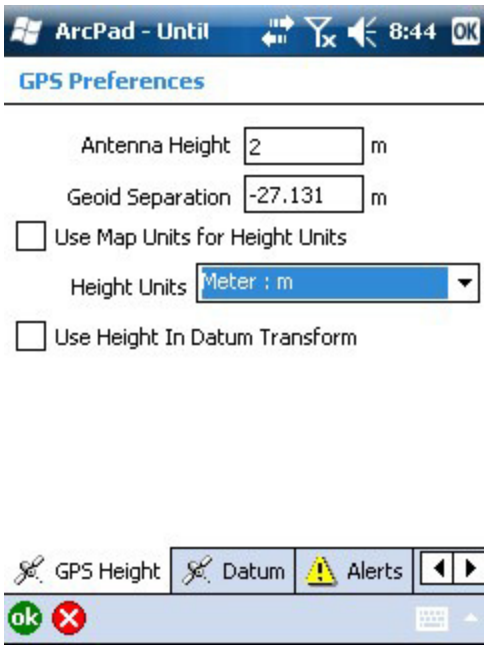
Changes require an exit from ArcPad. When ArcPad is opened again the changes will take effect..



Use GPS Preferences to set ArcPad to use the GPS receiver.

The protocol will be Ashtech Post-processing if GPSDifferential is installed.

Changes made in GPS Preferences require an exit from ArcPad. The changes will be used when ArcPad is started again.



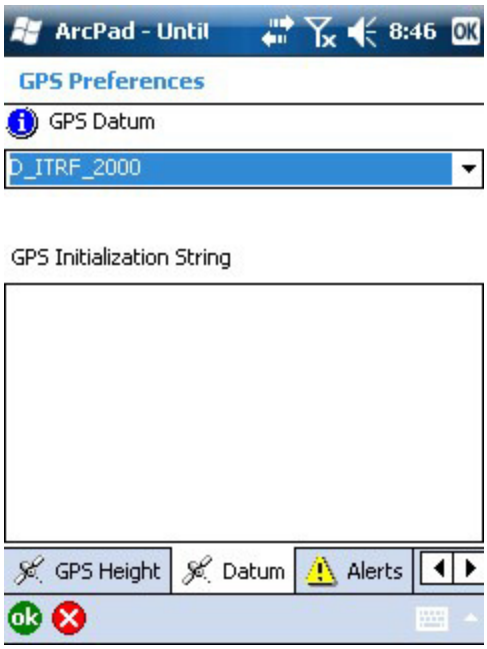
Antenna height is the typical height of the GPS antenna above the ground.

The geoid separation is the difference between the ellipsoid height measured by the GPS receiver and NAVD88 elevations.

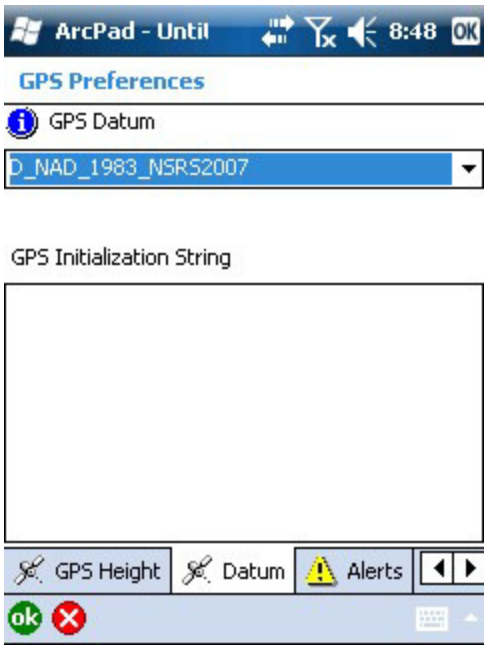
The NGS Geodetic Toolkit provides a way to compute the geiod separation for any location in the USA.

http://www.ngs.noaa.gov/cgi-bin/GEOID_STUFF/geoid09_prompt1.prl

After making changes exit from ArcPad and start it again.



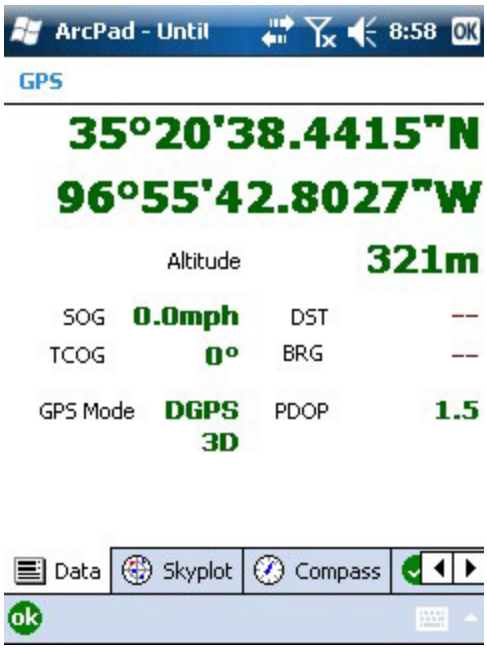
When using SBAS corrections best results are obtained with the GPS Datum set to D_ITRF_2000



Most RTK base stations and networks in the USA transmit corrections related to NAD83(CORS96).

When using RTK or differential corrections that are related to a modern version of NAD83 best results are obtained with the GPS Datum set to D_NAD_1983_NSRS2007

Changes made to the GPS Preferences require an exit from ArcPad. The changes will take effect when ArcPad is started again.



ArcPad 10 is computing a position and is now ready for field work.

Please direct questions, comments, and suggestions for improvements to this document to Phil Stevenson.

This is not intended to replace the instruction manuals and publications that are available from Ashtech and ESRI.

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April 21, 2011