



Application Note

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Product: PM500 and MobileMapper 6

Subject: Using a PM500 as an External Antenna with the MobileMapper 6

Summary:

In order to achieve Survey quality measurements in your GIS mapping project, a PM500 can be used as an antenna for the MobileMapper 6. Currently the most common GIS software that will support this on the MM6 is ArcPad and this document gives a description of how to configure this setup.

Here is a basic step-by-step work flow:

PM500 Setup:

- Perform a 3-button reset so that the PM500 is in default configuration
- With the PM500 on external power, connect to a terminal program from which PASH commands can be sent (e.g. WinComm or Evaluate)
- Configure the PM500 to send NMEA data through the Bluetooth port by sending the commands:

```
$PASHS,NME,GGA,C,ON,1  
$PASHS,NME,GSA,C,ON,1  
$PASHS,NME,GSV,C,ON,5  
$PASHS,NME,RMC,C,ON,1
```

NOTE: The GSV message type is set for a 5 second Epoch rate

The commands can be sent one at a time or as a group with your terminal program of choice and a description of them can be found in the PM500 reference manual on pg. 230

<ftp://ftp.magellangps.com/Land%20Survey/PM500/Manuals/PM500%20Reference%20Manual/>

- You should receive 10 lines of "\$PASHR ACK*3D" (WinComm) which will let you know that your commands were accepted and the PM500 is sending NMEA messages via the Bluetooth port (C).
- Disconnect the PM500 from the terminal program and close it, leaving the PM500 turned on and connected to external power

Connecting to the PM500:

- Start with the MM6 in close proximity to the PM500 with its power on
- Turn on the MM6 and navigate to Start/Settings/Connections tab/Bluetooth

- Step by Step instructions to connect to and assign a COM Port for the PM500 are below:

<p>1. Tap Add new device...</p>	<p>2. Select the PM500</p>	<p>3. Leave the Passcode field blank and tap Next</p>	<p>4. Put a tick in the Serial Port Box and tap OK in the upper right corner.</p>
<p>5. Select the COM Ports tab and tap New Outgoing Port</p>	<p>6. Select the PM500 and tap Next</p>	<p>7. Choose a COM Port for your Bluetooth connection (I chose COM8) and MOST IMPORTANTLY take the check OUT of the "Secure Connection" box</p>	<p>8. Tap Finish and you will see your PM500 with an assigned Bluetooth Port then close all windows to get back to the main screen</p>

ArcPad Setup

<p>1. Open ArcPad to an empty Map, tap the drop-down arrow next to the Satellite icon.</p>	<p>2. Choose the Port that you selected for the PM500 and then tap ok in the green circle.</p>	<p>3. Tap the drop-down arrow next to the Satellite icon and select the GPS position Window. Tap Yes to Activate GPS.</p>	<p>4. You now are receiving NMEA messages from the PM500 into ArcPad. Use Arpad as you normally would.</p>