

PROFESSIONAL

# **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 <a href="http://ftp.magellangps.com/Land%20Survey/PM500/Manuals/PM500%20Reference%20Manual/">http://ftp.magellangps.com/Land%20Survey/PM500/Manuals/PM500%20Reference%20Manual/</a>

- 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:

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Select a Bluetooth Device	Select a Bluetooth Device	Enter Passcode	Partnership Settings
Searching for Bluetooth Devices	Select a device to connect with and tap	Enter a passcode to establish a secure	Display Name: PM_751217
	Next.	connection with PM_751217.	Select services to use from this device.
	8 PM_751217		Serial Port
		Passcode:	
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1. Tap Add new device	2.Select the PM300	blank and tan Novt	Port Box and tan OK in
		biank and tap Next	the upper right corper
			the upper right corner.
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Bluetooth	Add a Device	Bluetooth	Bluetooth
After pairing with a device, to set up a COM port tap New Outgoing Port. For other	Select the device you want to add	Port:	After pairing with a device, to set up a COM port tap New Outgoing Port. For other
options, tap and hold an existing port.	PM_751217	COM8 -	options, tap and hold an existing port.
New Outgoing Port		Secure Connection	PM 751217 (COM8)
New oblgoing Fore			New Outgoing Port
Devices Mode COM Ports			Devices Mode COM Ports
	Cancel 🔤 Next	Back 🔤 Finish	
5. Select the COM Ports tab and	6. Select the PM500 and tap	7. Choose a COM Port for your	8. Tap Finish and you will see
tap New Outgoing Port	Next	Bluetooth connection (I chose	your PM500 with an assigned
		COMB) and MOST IMPORTANTLY	Bluetooth Port then close all
		take the shock OUT of the "Secure	windows to got back to the main

# ArcPad Setup

Image: ArcPad       Image: ArcPad	Image: ArcPad     Image: ArcPad       GPS Preferences       Protocol       Port       COM8:       Baud       9600       Jaud       Automatically Activate       Show GPS Activity in System Tray       Automatically Pan View       Log	Image: ArcPad       Image: ArcPad       Image: ArcPad         Image: ArcPad       Image: ArcPad       Image         Image: A	ArcPad - Untitk       # # € 4:22         DMS       Ø <t< th=""></t<>
1:630396 Z	K GPS K Capture K Quality K ↓ ↓	1:630396 Z	1:630396 Z
1. Open ArcPad to an empty Map, tap the drop-down arrow next to the Satellite icon.	2. Choose the Port that you selected for the PM500 and then tap ok in the green circle.	3. Tap the drop-down arrow next to the Satellite icon and select the GPS position Window. Tap Yes to Activate GPS.	4. You now are receiving NMEA messages from the PM500 into ArcPad. Use Arpad as you normally would.