

Reloading a ProMark / MobileMapper XXO Device

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This application note pertains to the following Ashtech / Spectra Precision Products:

ProMark 100, ProMark 200, MobileMapper 100 ProMark 120, ProMark 220, MobileMapper 120

Detailed, step-by-step instructions are included for recovering device options, software activation keys, resetting the device to a factory clean state, recovering a device that will not boot, installing MobileMapper Field, ProMark Field, FAST Survey and ArcPad.

IT IS VERY IMPORTANT that you read Sections 1 and 2 before you continue. They are marked in RED to make it easy for you to find them.

Even if you received installation disks with your device you should ALWAYS check for superseded software and firmware for your device. Don't use the disks that came with your product unless you are positive that they have the very latest tools.

Sometimes when devices fill up, they won't ActiveSync anymore with a USB connection. There is a chance that you can successfully active sync with Bluetooth. This is especially nice if your laptop or computer has built in Bluetooth. Check out the chapter on bonding with Bluetooth.



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1. IMPORTANT: You can brick your device!

This information is presented as a courtesy by Mark Silver. These are the procedures that I use, but they are certainly not guaranteed to work. There are lots of things that can go wrong.

If you brick your device, it is your problem and not mine. Please be careful.

If you purchased your receiver from us, you can return it to us and we will reload it. Typically we only charge return shipping. We are pretty good about not bricking receivers, but as we are loading 100's of receivers every year, stuff does go wrong.

If you did not purchase your device from us then you should expect the dealer who sold your equipment to help you.

2. IMPORTANT: You must have ALL Activation Keys before starting!

All software activations:

MobileMapper Field Post Processing Activation ProMark Field FAST Survey Carlson SurvCE

will be lost when the device is reloaded.

There is a risk of device activations like:

GLONASS L2 Tracking FAST Output NTRIP RTK

being lost during the update.

For this reason you MUST be certain that you have accurate activation keys for all purchased options. If you don't, you will have to repurchase the options to enable them.

If you purchased the receiver from iGage Mapping Corporation, then the activation keys will be on your original invoice AND they will be on the sticker under the battery in the battery compartment:





Plus they are in our master database and we can send them to you by email. We don't have option and software keys for devices that we did not sell or distribute, so if there is not an option sticker under the battery we won't know the serial numbers.

Serial Number tracking may be the best reason for purchasing a device from iGage Mapping Corporation (we typically have the best price and service also.)

You should not proceed with reloading the device if you are missing even a single activation key! You may end up purchasing the option again!

At the end of this document, there are instructions for retrieving activation keys.

If you receiver is locked up, it will not be possible to retrieve the keys.

For this reason, if you don't have the activation keys and your receiver is working then you should retrieve and store your keys today.



3. Clean Booting Your Device

When you clean boot your device, it will erase ALL of the information on 'My Device' all programs and all software keys will have to be reinstalled.

If you don't have the activation keys, it may cost you thousands of dollars to repurchase your software tools. Instructions are included at the end of this document for retrieving all software and hardware keys.

You can clean boot your device and leave the 'Storage Disk' intact (unaltered) or you can clean boot your device and format the 'Storage Disk'. If there is data on the 'Storage Disk' that you cannot download, you probably want to clean boot without formatting, then copy the data you need from the 'Storage Disk' and then clean boot a second time with a format.

If You Can Boot Your MM100, PM100, PM200 Device

If you are sure you want to reload everything, download the 'CleenBoot3.cpl' tool from the FTP site or from the mirror:

http://alltopo.com/out/ashtech/2014/20140617/Legacy/Land%20Survey/ProMark%20100%20-%20200/Software/Reset%20factory%20settings%20Tool/CleanBoot3.cpl

Place this tool in the Windows folder on your device. This will add the 'Reset to factory default' icon on the System folder.

Alternatively you can place the 'CleanBoot.exe' tool on your device. It does not allow for formatting the 'Storage Disk'. You can download CleanBoot.exe from:

http://alltopo.com/out/ashtech/2014/20140617/Legacy/Land%20Survey/ProMark%20100%20-%20200/Software/Reset%20factory%20settings%20Tool/CleanBoot.exe

If You Can Boot Your MM120, PM120 or PM220 Device

The 'Reset to factory default' icon is already installed on your device.

Performing the Clean Boot

1. From the main menu click on 'Start' (the flower in the corner)



2. Click on Settings:



3. Click on 'System':





4. Roll down and click on 'Reset to factory default':



Reset to factory default

Warning: Press 'Clean Boot' will set your Mobile Device to Factory Default IF Format Storage Disk is checked.. All user data of Storage Disk is lost The Service Layer will have to be re-installed after this step

Format Storage Disk

	Clean Boot	

Click the 'Clean Boot' button.

- 6. The receiver will reboot with a 'clean' operating system.
- If it was locked up before, it should be unlocked at this point. If there was data on the 'Storage Disk' that you could not download, you should be able to download it now.
- If you 'Clean Boot'ed without a Format of the 'Storage Disk', I recommend that you get your data and then 'Clean Boot' with Format checked again. The problem that caused you to reload all of your software may have been a damaged format on the internal 'Storage Disk'.



If You Can NOT Boot Your Device: Recovering the Operating System

If your device will boot, then you can copy the 'CleanBoot.exe' file onto your device and run it (as shown earlier in this document.) You don't need to use this double-three-fingered reset.

Do NOT use the following method on a device that will boot, it is dangerous.

Read this entire sequence twice before you attempt it. The double-three-fingered button press is difficult to do. You will probably have to do it two or three times to get it right.

When you do this procedure ALL DATA stored on the 'My Device' will be lost. For sure. Data on the 'Storage Disk' will probably survive, maybe not.

- 1. Make sure your device has a fully charged battery installed in it.
- 2. Look at your device, it looks something like this:



3. While your receiver is on, or booting or almost booted, click on these three buttons at the same time:

IN - CENTER - ESC

Now, immediately click on these three buttons:

Left (-) – Center – Arrow-In-Box

at the same time, hold all three for at least three seconds.

This sequence is shown in the diagram above as "1" and "2". If you do it right, then you will see a screen that looks like this:





Push the down-arrow to select option **`[03] Clean Boot'** then click the Center (Enter) button.

WARNING: If you make any other selection, you will brick your receiver.

4. The receiver will reboot. DO NOT push any buttons. Do not turn off the receiver. The screen will be blank for a VERY long time. Do not panic. Do not push any buttons.

Continue to wait, after a while you will be prompted to align the screen. Don't. Just wait for another minute.

The receiver will/may reboot again.

After waiting a long time, if you are asked to align the screen, go ahead and do it.

5. Reload all of your software as described earlier in this document.

If this method fails to clean boot your device, your device will have to be returned to the factory. Contact your dealer to obtain an SWO number or contact the factory repair depot directly by sending email to:

Repair services@trimble.com

with the following information:

Company Name Contact Name Address Phone Number email



Product Model

Serial Number

Reason for Repair

You should get a reply with an SWO number and instructions for returning the equipment.



4. Installing the 'GNSS Service Layer' and 'GNSS Toolbox' on your Device

After Clean Booting, you will have to reinstall the 'GNSS Service Layer' and 'GNSS Toolbox' on your device.

Both installations are distributed as .CAB files. The latest versions can be downloaded from the Spectra Precision web site, or directly with these links:

Service Layer: http://ashgps.com/mirror/20130710/Land%20Survey/ProMark%20100%20-%20200/Firmware/Service%20layer%202.1%20&%20GNSS%20Ht26/PM5_V2.1.mW213Ht26.CAB

GNSS Toolbox: <u>http://ashgps.com/mirror/20130710/Land%20Survey/ProMark%20100%20-</u>%20200/Firmware/GNSS%20Toolbox%203.5/Toolbox3.5.CAB

- 1. Place both files on the device's 'Storage Disk', or on an SD card.
- 2. From the main menu, click on 'Start' then the 'File Explorer', then navigate to the location where the two cab files are located (the 'Storage Disk' in this example):



Up 🖽 Menu



3. Click on the 'GNSS FW 2.2(...' item:

😹 Start	#72.€ @
Installing GNSS FW .CAB	/ 2.2 (W213Hw26)





4. Accept the unknown publisher warning by clicking 'Yes':







5. Patiently wait for the Service Layer to be installed:



13



7. After 3 minutes and 50 seconds, the blue bar will march from the left to the right. It will then begin moving from the left again:

🗑 GNSS Loader	₽₩	C OK
GNSS Upl	oad	
File : gnss_Hw26.bin		
Upload Status : IN PF	ROGRESS	

14

ft an 20	additional	cocordo	

8. After 30 additional seconds you will be left at the main menu. The Ashtech desktop will be installed and there will be a **`a**' on the bottom line:





9. Click on 'Start' and then the 'File Explorer' again:

😹 File Explorer	₽ 1	€@×
📗 Storage Disk 👻		Name 👻
20100101	1/1/10	575B
😽 GN55 FW 2.2 (1/1/10	3.90M
😽 GNSS Toolbox	1/1/10	5.59M



10.Click on the 'GNSS Toolbox...' link, after a few seconds you will be asked where to install to:



Choose 'Device' as shown and then press 'Install'.



11. Wait 25 seconds for the Toolbox to be installed:





13.Click on 'OK', then close the 'File Explorer':



14.Click on 'GNSS Toolbox', the click on Status and make sure your device tracks satellites. (You may need to go outside of course.)



5. Installing 'Button Off' on your Mobile Device

Let's face it, the on / off button (the rubber button) on these devices is horrible. Luckily, I have written a simple tool for adding a shortcut to the program list that will fully turn off your receiver.

We always install this tool when provisioning a device. Here is how:



- 1. Download the tool: "AddButtonOff.exe": http://ashgps.com/ms/ButtonOffTool/AddButtonOff.exe
- 2. Run the tool:

Open File - Security Warning 🛛 🔀		
Do you want to run this file?		
	Name: AddButtonOff.exe	
	Publisher: Igage Mapping Corporation	
	Type: Application	
	From: C:\Documents and Settings\igage\Desktop	
	<u>R</u> un Cancel	
✓ Always ask before opening this file		
While files from the Internet can be useful, this file type can potentially harm your computer. Only run software from publishers you trust. What's the risk?		

Click 'Run' if you get a security warning.

- 3. Make sure your device is active-synced to your computer.
- 4. The tool will start:

😂 Add ButtonOff Ver: 2013.12.12.105	×
[Join the AshGPS Mail List] for Automatic Firmware and Software Notifications	
Checkout iGage] for GPS Receivers and Support!	
Hello!	^
This simple tool will automatically install a shortcut on your MobileMapper 100/120 or ProMark 100,120,200,220 device which will allow you to turn off the reciever from the touchscreen (instead of using the power-switch.)	
First, make sure your receiver is connected to your desktop and ActiveSync or the Windows Mobile Device Center is running.	
Next, click button '1. Device Information' to check your connection.	
Finally, click button '2. Add ButtonOff Link' to add the shortcut to your receiver's start menu.	=
Once the the shortcut is installed, you can click on Start and then 'ButtonOff' to fully shutdown your receiver.	
If you have not already signed up for Mark Silver's AshGPS mail list, you can use the 'Join the AshGPS Mail List' at the top of this tool. Mark provides timely information on firmware, software and device updates that will help you make the most of your Spectra Precision / Ashtech investment!	
	•
1. Device Information	
2. Add ButtonOff Link	



5. Click on '1. Device Information':

😪 Add ButtonOff Ver: 2013.12.12.105	
[Join the AshGPS Mail List] for Automatic Firmware and Software Notifications [Checkout iGage] for GPS Receivers and Support!	
OS Version : 5:2 Processor type : 2577 Memory In Use : 20% Available memory : 190,046,208 Total memory : 236,892,160 AC Connected : Y Battery life : 100% Backup battery life : 255% Vert. resolution : 320 Horz. resolution : 240 Bits per pixel : 16 Network present : No	
	>
1. Device Information 2. Add ButtonOff Link	

If your device is connected, you will see some information about the device capabilities.

6. Click on '2. Add ButtonOff Link':





7. The link will be added to the list of programs, but it would be nice to have it close to the top of the list. Click on Start:



8. Slide down to the bottom of the programs and find the ButtonOff link, click-and-hold until the 'Move To Top' option appears (on MM120, PM120 and PM220 the icon will float and then you can drag it to the top of the program list):



9. You can now click on Start and then 'ButtonOff' to save all configuration values and turn off your device:







6. Installing MobileMapper Field

The first time you install MobileMapper Field from an activesync (or Windows Mobile Device Center) attached computer the three components will automatically be sequentially installed.

After the first installation, you have to manually sequence through these components:

TTSBase Install
Required Data MM Field Install
MobileMapper Field Install

Install to Device Install to 'Storage Disk' Install to Device

This is confusing for most people. The shortcut locations vary depending on the operating system of the attached computer. If you are running Windows 8, then you can just press the 'Windows Icon Key' and search for the components (like 'TTSBase'). If you are installing from an earlier Windows OS, you can find the install tools on the Start: Program menu.

These instructions show Windows 8.1 for 'MobileMapper Field' install and Windows XP for 'ProMark Field' install. Hopefully you can figure out the differences as required by your OS.

1. First, let's install the TTSBase. From the Win8 desktop, search for TTSBase:



Click on TTSBase Install. Install to 'Device'



2. Next Install the MobileMapper Required Data:



Install to 'Storage Disk'.

3. Finally install MobileMapper Field:

Search
Everywhere 🗸
mobilemapper fi <mark>eld Uninstall</mark>
MobileMapper Field Uninstall
MobileMapper Field Install

Install to 'Device'. The device will reboot.

- 4. After the device reboots, run MobileMapper Field. You will need to enter the activation key.
- 5. If you have a post-processing key, click on Menu, then Recording (tab), check the box to record and then Okay. You will be prompted to enter your post-processing key.



7. Installing ProMark Field

If you are reloading a ProMark device, you will need to install ProMark Field. The first time you install ProMark Field from an activesync (or Windows Mobile Device Center) attached computer the three components will automatically be sequentially installed.

After the first installation, you have to manually sequence through these components:

TTSBase Install Required Data PM Field Install ProMark Field Install Install to Device Install to 'Storage Disk' Install to Device

This is confusing for most people. The shortcut locations vary depending on the operating system of the attached computer.

If you are running Windows 8, then you can just press the 'Windows Icon Key' and search for the components, running them sequentially in this order:





Install the Required Data to 'Storage Disk'





The installation process will look like the screen shots below which detail the XP installation.

Under Windows XP, the locations will be a bit tricky and screen shots are provided.



1. First, install the 'TTSBase':

		Ashtech Field Software	÷	٠.	Microsoft Plust Dancer LE	-	-
		Field Software			ProMark Field Install		
Operation of the second sec	600	MSN Epcarta Standard	-	ŝ	TTSBase Install		
File View Tools Holf	-	New Office Document	レ		Required Data PMEield Install		
🔕 Sync 🕒 Schedule		Open Office Document			ProMark Field I Ininctal		
Guest		Set Program Access and Defaults			MobileManner Field Uninstall		
0		Windows Catalon			Required Data MMEield Install		
MyMobiler		Windows Update			Option Manager		
File Edit View T		wildows opdate		мм	MobileManager Field Install		
_ 🖳 🎸 🕞 🕒 I 🖣	Ē	7-Zip	•		Costingatest		
💐 Start	Ē	Accessories	•		Windows Mourie Maker	-	
Tuesday	Ē	ArcGIS	•		Nouêtol Inc.		
September 02, 20	Ē	Ashtech	•		FREEN		ĺ
🔞 GNSS Toolbox	m	AVG	•		EPDON		
Phone off	Ē	CeRegEditor	•				
L B: Off	Ē	FileZilla FTP Client	•				
	Ē	Games	→				
	D	GNSS Solutions	•				
-	m	Google Chrome	•				
00	6	HiSilicon	•				
	m	HP	•				
	m	InterVideo WinDVD	•				
igage	Ē	Magellan	•				
	m	Microsoft Works	•				
	m	Okidata	•				
Google Chrome	Ē	Online Services	•				
💽 E-mail	m	Pacific Crest	•				
Microsoft Office Out	m	PC Help & Tools	•				
Notepad	6	PL-2303 USB-Serial Driver	•				
		QuickTime	•				
Shortcut to AshSN20		Real	•				
		Sonic RecordNow!	•				
Spectra Precision Op Manager	m	Spectra Precision	•				
		Startup	•				
X9× Download	m	Trimble	•				
ArcPad Deployment	6	WeatherBug	•				
Manager	m	WinFlash	•				
WordPad	m	X90-OPUS	•				
	Å	Adobe Reader X					
CeRegEditor	1	GnssSurfer-Manual-V108b-2.pdf					
	1	Gnss5urferV1.08b-2					
All Programs 🜔	4	HP Music					
		Install Microsoft Money					
	6	Internet Explorer					
🛃 start 🔰 💿 ,	0	Microsoft ActiveSvnc					
	1						

26

2. Wait for the program to transfer to your device:





3. A completion screen will be shown, don't OK it yet:





6. Click on 'OK' on your desktop to complete the TTS Install:



7. Install the 'Required Data'. Click on 'Start: Field Software: Required Data PMField Install":





8. This time, choose to install the required data onto the 'Storage Disk':





10.Next install 'ProMark Field'. Click on 'Start: Field Software: ProMark Field Install':





11.After 1-minute the installation will be complete and the device will automatically reboot:



12. When the device reboots, start 'ProMark Field' from the device shortcut and enter the activation key:



Then, type this product key in the edit box below, and tap ok when ready.

0504D0D5B33A8





13.If you have the correct activation key, you will be greeted with the main screen of ProMark Field:

赶 ProMark Field	ł	₽₩.	٩X
🎾 14 PDOP: 1.5 SDGPS Age: 4 s	HRM9 VRM9	5: 0.364 n 5: 0.775 n	ר ו
			+
	•		
		1(00 m _,
40°44'10.21878" 111°51'34.20834	"w	1303	3.828 m
Log		М	enu

8. Installing FAST Survey on your Device

Download the latest version of FAST Survey from the web. If you have a version 3 license, download the latest Version 3. If you have a version 4 license, download the latest version 4.

With the mobile device active-synced to your computer, run the installer.

9. Installing ArcPad on Your Mobile Device

When installing or re-installing ArcPad, you should always download the latest version of ArcPad from the ESRI website.

This link: <u>http://www.esri.com/software/arcgis/arcpad</u> currently will get you to the ArcPad page where you can find a link to the demo download.

1. After you download the large installation file, install it on your computer. The installation will add a 'Deploy ArcPad':





Find it and click on it.



2. The deployment manager will be shown. Check the boxes as shown below:

NrcPad Deployment	Manager	×
	Install ArcPad for Windows Mobile Install ArcPad StreetMap for Windows Mobile Install ArcPad Today Plug-in for Windows Mobile Install Datum Transform/s for Windows Mobile Install HARN tables to Windows Mobile Install Language Pack/s for Windows Mobile Install Sample/s on Windows Mobile Install SQL Server Compact for Windows Mobile Install VBScript Runtime Library for Windows Mobile	
	Deploy	Done
Click on `Deploy':		
Installing Applications		
Installing ESRI ArcPad 10.2.		
	Cancel	

Application Downloading Complete
Please check your mobile device screen to see if additional steps are necessary to complete this installation.
OK



5. On your mobile device, wait for the 'Choose a location' to be shown:



You can choose 'Device' or 'Storage Disk' however if you choose 'Storage Disk' everything EXCEPT for 'ArcPad Today' will need to be installed on the 'Storage Disk'. I think there is a run-time speed advantage to having the program on 'Device' and data on 'Storage Disk' so I install everything on 'Device' as shown.

6. After choosing the destination, click on 'Install'. Wait for ArcPad to complete installation and THEN go to your desktop and click on the OK button:

Application Downloading Complete
Please check your mobile device screen to see if additional steps are necessary to complete this installation.
ОК

7. The next ArcPad item (ArcPad Today) will be installed, then the NADCON components, then SQL servers and OS helpers.

REMEMBER: ArcPad Today MUST BE INSTALLED on 'Device'!

8. When you complete installing all of the ArcPad components, ALWAYS install the Spectra Precision / Trimble ArcPad Extensions. Even if you did not purchase Post Processing, install the extensions!

If you don't install the extension, then you will have to configure the NMEA strings for ArcPad. And you may have to do it often if you use other programs on your device.

In addition, you will get accurate EPE reporting if you install the extension.



9. You should download the extension and run it on your compute with the mobile device disconnected. The current ArcPad Extension can be downloaded from:

http://alltopo.com/out/ashtech/2014/20140617/Legacy/Mobile%20Mappin g/MobileMapper%2020/Software/ArcPadDLL/GpsArcpadExtPCSetup 2 6 1 .exe



10.Connect your mobile device, make sure it is fully active-synced and then start the installation tool:



11.On the mobile device, OK the installation of the ArcPad extension. The destination MUST match the location of ArcPad (typically Device.)



12. The installation of the ArcPad extension only takes 3 seconds. When it complete, return to the main menu of your device:



13.Click on the ArcPad launch icon (red arrow above) and wait for ArcPad to begin (this will take some time):





14.Click on OK (what choice do you have?)

🐉 ArcPad Registi 🛛 🛱 🏹 🗲 🎟						
Correct entry of your registration number is required to activate ArcPad, otherwise evaluation mode will be activated.						
Name						
Organization						
Registration Number 118030D091XX						
ОК						



Then enter your ArcPad registration number and click on OK again.

15. The 'Welcome to ArcPad' screen will be displayed:

🛃 Wel	come to Ar	ţ	∖₹	ω×	
Please se	Please select how you wish to start				
	New map				
	Create	a Quicł	Project		
	Choose	e map t	o open		
	Open l	last ma	p used		
Set as default and don't ask again					

Click on 'New Map'.



16. The main menu of ArcPad is displayed:



17.Click on the down-arrow under the satellite icon, then click on 'GPS Preferences':





18.Configure as shown below:

💐 ArcPad - Untitl 🛛 👫 🏹 🗲 🎟	OK			
GP5 Preferences				
Protocol Trimble Post-processing	•			
Port COM2:VSER on COM2:	•			
Baud 256000 🛛 🗸 🖉 👫				
Automatically Activate				
Show GPS Activity in System Tray				
Automatically Pan View				
Log				



19. Click on 'OK' then click on the Satellite icon to begin tracking:



		8
	1306m	40°44'10.2276"N
	0.0knh	111º51'34.1966"W
14 of 21	olokpii	

- 20. Verify that ArcPad has a position (you may need to go outside of course.)
- 21.If you purchased Post Processing and you have the activation key, then you should activate Post-Processing.

Click on the 'Pencil-Post-Process' icon (1):







Then click on the 'Record' button (2).

22.Enter your activation key:

🐉 ArcPad - Untitl 🛛 🛱 🏹 帐 🎟					
Enter activation key ok X					
Serial number: 020010410145					
Activation key: 03401682875C1					
1306m 40°44'10.2278"N 14 of 21 0.0kph 111°51'34.1966"W					
123 1 2 3 4 5 6 7 8 9 0 - = 🕈					
$\begin{array}{c c} AP & a & s & u & f & g & n & j & K & f & j \\ \hline Shift & z & x & c & y & h & n & m & s & j & j & k \\ \end{array}$					
Ctl áü ` \ ↓↑←→					

ArcPad should be ready to collect data now.

10. Installing FAST Survey on your Mobile Device

The first task when installing FAST Survey is to determine which version of FAST Survey you are authorized to run. The most recent version is 4.1, however most users hold 3.1 licenses.

Then click on 'OK'.



If your license begins with 409, you have a version 3 serial number. For example this is a version 3 FAST Serial Number:

40964-CAA30-214613-xxxx

If your license begins with 952, then you have a V4 serial number. For example, this is a version 4 FAST Serial Number:

95236-CAA30-251750-xxxxx

Download the latest version of FAST Survey for your device. There are currently links available on the Spectra Precision web site:

http://www.spectraprecision.com/products/surveying-software/fast-survey/

on the 'Support' tab.

1. Here is an example of installing FAST Survey v 3.1. First run the exe tool:





2. Agree to the license terms:

Installing Applications	
Installing Spectra Precision FAST Survey	
Cancel	
after a minute the upload is complete:	
Application Downloading Complete	
Please check your mobile device screen to see if additional steps	are necessary to complete this installation.
OK]	



4. On the mobile device screen choose 'Device' for the install location:



Click 'Install'.

5. Since you have already recorded the serial number and change code, you can directly go to the registration page (when FAST Survey Starts, it will offer to take you there directly)



11. Retrieving Activation Keys for Device Options

It is possible to retrieve activation keys for these device options:

GLONASS NTRIP L2 Tracking RTK FAST Output

by sending a single command within the 'FAST Survey' application. If FAST Survey is not installed on your device, you can install the software and it will run in Demo mode which will allow you to retrieve the activation keys.

Here are step by step instructions:

- 1. Start FAST Survey, if FAST Survey is not installed, install the demo copy.
- 2. Goto Equip, then Click on GPS Rover:



Make sure it looks like above, then click on the RTK tab.



3. On the RTK tab, configure this way:

赶 FAST 9	jurvey		‰≮	ΞX
😂 GPS R	over		\sim	
Current	Receiver	RTK		
				1
Device:	Cable or G	Generio	: Dev 🔻	
Network	None		-]
Port:	В	-		
Baud:	19200	•		
Parity:	None	.⊤S	top: 1	Ŧ
Send	Rover Posi	tion to	Netwo	vrk

Click on the green check mark.

4. You are back to the main menu:





5. Click on '4 GPS Utilities':

🚝 FAST Survey	╡╱╡
<mark>ஜ</mark> GPS Utilities	C
Known Point Initialization	Static On The Fly Initialization
Reset Factory Defaults	Kinematic Bar Initialization
On The Fly Initialization	GNSS Toolbox
	Send Command

6. Click on 'Send Command', enter "\$PASHQ,OPTION" in the text box:

📲 FAST Survey	╬Ҡ҉€
😂 Send C to Rec	eiver 🗹 🗙
Command to Send:	Send File
\$PASHQ,OPTION	▼ Send
Clear Cmd List	Save Cmd File



7. Click on 'Send':

💐 FAST Survey 💦 👫 🏹 🗲 🎟 🗙	💐 FAST Survey 💦 👫 🏹 🗲 🎟 🗙
📚 Send C to Receiver 🗹 🗙	📚 Send C to Receiver 🗹 🗙
Command to Send: Send File	Command to Send: Send File
\$PASHQ,OPTION	\$PASHQ,OPTION Send
Sent: : \$PASHQ,OPTION Received: \$PASHR,OPTION,0,SERIA Received: \$PASHR,OPTION,K,RTK,0 Received: \$PASHR,OPTION,F,FAST(Received: \$PASHR,OPTION,Z,MODE Received: \$PASHR,OPTION,S,GLON, Received: \$PASHR,OPTION,G,GPSL2	SERIAL NUMBER,020011320125*4D RTK,05774051A81DC*17 FASTOUTPUT,191ae0e4bf654*6D MODEM,0577418E91518*06 GLONASS,0577435ACD0CB*03 GPSL2,057744CE2607A*67
<pre> # # ></pre>	× = :>
Clear Cmd List Save Cmd File	Clear Cmd List Save Cmd File

 You can either write down the codes by hand, or you can use an ActiveSync connection to browse to the text file that contains the contents. However, you MUST retrieve the command file prior to exiting this screen as the file is deleted when you exit.

The command file can be found in the folder where the current job is stored:



The file is always named 'ReceiverCommResults.txt". You will have to copy the file from the device to your PC hard drive to open or view it. The contents will look like this, the activation keys which you desire are highlighted, you need to keep the code like 'RTK' and the key value like '05774051A81DC' together:

```
Sent: : $PASHQ,OPTION
Received: $PASHR,OPTION,0,SERIAL NUMBER,020011320125*4D
Received: $PASHR,OPTION,K,RTK,05774051A81DC*17
Received: $PASHR,OPTION,F,FASTOUTPUT,191ae0e4bf654*6D
Received: $PASHR,OPTION,Z,MODEM,0577418E91518*06
Received: $PASHR,OPTION,S,GLONASS,0577435ACD0CB*03
Received: $PASHR,OPTION,G,GPSL2,057744CE2607A*67
```



12. Retrieving MobileMapper Field, ProMark Field and Post Processing Codes

The MobileMapper Field, ProMark Field and Post-Processing codes are stored in the mobile device registry or hive. You will need to install a tool on a PC which is active-synced to the device that allows you to inspect the device values.

I use the excellent, free tool ceregeditor:

http://ceregeditor.mdsoft.pl/

One warning: while you are editing the hive don't even think about changing anything!

1. Start ceregeditor (if you are running Windows 8, you may need to right click on the desktop icon and 'Run as Administrator'):





2. Then click on "Connection: Connect", the three root HKEYS will be shown (if they are not shown, you should have 'Run as Administrator'):

· · · · · · · · · · · · · · · · · · ·	CER	egEditor ver 0.0.5.2 by me	dSoft		-	□ ×
Connection File Edit Favorites Compare Conv	ersion Tools	Language About				
🔋 🕭 🖼 🗅 🚵 🖶 ⊄ 🗎 🐔 🐔	谢 🗀 🤅	h m 🗋 📖				
WINDOWSMOBILE11 CE OS: 5.2.21895					🎁 100% charging 🧼 179.7 MB/79%	free memory
	Name		Туре	Data		
	Туре	Key name		Value name		Value
	Search					
Favorites	Connection	established				
HKEY_CLASSES_ROOT		(i)	Choose r	menu item to pe	erform action	

3. On the left pane, click on the small arrow to the right of the second key "HKEY_CURRENT_USER", then click on Software, then click on Ashtech:

(P)	CEReg	Editor ver 0.0.5.2	by mdSoft		-	□ ×	
Connection File Edit Favorites Compare Conversion Tools Language About							
🔋 🥼 🔀 🗅 🚵 🔚 ⊄ 🖷 🐔 🐔	😻 🗀 🏨	m 🗋 👪					
WINDOWSMOBILE11 CE OS: 5.2.21895					🎁 100% full 🧼 179.5 MB/79% fi	ee memory	
	Name		Туре	Data			
- · · · · · · · · · · · · · · · · ·	Type K	ey name		Value name		Value	
KEY_CURRENT_USER\Software\Magellan	Registry data	loaded Device re	gistry keys - right (click for additior mainmenu	nal actions or select actio	ns from	

 If you have MobileMapper Field the activation key will be under 'MobileMapper Field: Options'. The 'ProductKey' is the MobileMapper Field activation key:

- · · · · · · · · · · · · · · · · · · ·	' Name	Type	Data	
▲ · · · · · · · · · · · · · · · · · · ·	ab ProductKey	REG_SZ	191AE25DF7439	
	ab RawDataKey	REG_SZ	191AE4FC016D8	

If you have purchased Post-Processing, the activation key for post processing will be the 'RawDataKey' value.

Depending upon how Post Processing was enabled, there may be a RawDataKey under "HKEY_CURRENT_USER: Software: Magellan:



MobileMapping: Options":

A i Magellan	^	Name	Туре	Data
Mobile Mapping		ab RawDataKey	REG_SZ	191AE4FC016D8

5. If you have 'ProMark Field' installed, the activation key will be under "HKEY_CURRENT_USER: Software: Ashtech: ProMark Field: Options":

				•
🔺 🦲 ProMark Field	^	Name	Туре	Data
		ProductKey	REG_SZ	191AE2AB354D3
Settinas				

6. You can double-click on a value and a dialog box like this:

ab	Edit	×
Key name:	ED \Saftware \Ashtech\DroMark Eield\Oations	
Value name:		
ProductKey		
Value data: 191AE2AB354D3		
Set as defau	lt key's value	
	ОК	Cancel

will be shown. You can highlight and copy the Value data into the clipboard and then save it to a text file. Be sure to keep the different Key names and Values separated as you will need to know which is what.



13. Retrieving the FAST Survey 'Serial Number' and 'Change Key'

If your device has FAST Survey installed, you need to know the full serial number and the 'Change Key'. They are both displayed under "Equip: About: Change Registration":

💐 FAST Survey 💦 👫 🏹	ŧ	Ξ×
😫 Product Registration 🚽		
Serial Number:		
40968-CAA30- -2810		
Hardware ID 1: 343327 Hardware ID 2: 2049312823	0	
Reg Code: 3327-2500	Get	: Code
Visit survce.com/FASTSurve to register.	у	
Enter Change Key:		
362571		<u>O</u> K

You should record the 'Serial Number' and the 'Change Key' at the bottom (it is 362571 on the screen shot above.)



14. Retrieving the ArcPad Activation Key

1. Open ArcPad and proceed to the main menu:



2. Click on the down button under the Question mark:



3. Click on 'About ArcPad...':



4. Read your activation key from the panel:





15. ActiveSync with Bluetooth

- 1. Th
- 2. Te
- 3. Te
- 4. You should be able to see the PM5 device from your PC:
- 5. On the mobile device, first click on the 'connectivity' icon (1) on the top bar, then click on 'Wireless Manager' (2):





6. The Wireless Manger is shown, click on the big blue Bluetooth bar:



7. Click on menu (bottom right corner):



then 'Bluetooth Settings'



8. The Bluetooth Settings screen will be shown:



9. Click on the 'Mode' tab:



Then check the 'Make the device visible to other devices'.



10.Back on your PC:



You should be able to see the PM5 device, shown as 'Ready to pair'.

- 11.Click on the PM5 device, and then click on the 'Pair' button.
- 12.On the mobile device, you will be prompted to pair:



Click on 'Yes'.

13.Your PC will display a passcode:





14.Quickly enter this number on your mobile device:



and then click 'Next'. 15.Start Windows Mobile Device Center



You will be 'Not Connected'.



16.On the mobile device, navigate to the Bluetooth Settings dialog:



Click-and-hold on your computer name (mine's name is MARK13) 17.A pop-up dialog will be shown:



18.Click on Connect.



19.Now, on your PC you will see:

	Windows Mobile Device Center	- 🗆 ×
E Home		0
Window		
Mc	bile	
	Mobile <u>D</u> evice Settin	gs
🔘 Connecti	ng	

20.After 30 seconds your device will be active-synced to your PC. The connection is fast and it will be remembered. So it will be easy to setup in the future.