

GBM Mobile – Technical Support

Installation and Configuration Trouble Shooting

This document presents solutions to the installation and configuration issues that are most commonly referred to the Exa-Min support team.

The issues addressed are:

- Installation failure – loading GBM Mobile Manager onto a Windows PC
- Installation failure – loading GBM Mobile onto a PDA
- GBM Mobile Camera Configuration
- Software Editions – GPS support
- GPS Failure – Inbuilt GPS units

1. Installation Failure – Loading GBM Mobile Manager onto a PC

Because GBM Mobile creates registry keys in the systems area and loads program components, you will require administrator privileges on your Windows login to install GBM Mobile Manager onto a PC.

On rare occasions the installation program fails with systems error messages. Two conditions can give rise to these conditions:

Operating Systems status – A number of external factors such as the history of prior program execution or network events can cause instabilities in Windows operating system. These may lead to spurious error messages or program failures.

Try a reboot of the PC to make sure the problem is not related to temporary operating system instability arising from the operation of some external program prior to starting the GBM Mobile installation.

Anti Virus Software - GBM Mobile Manager commonly needs to register Visual Basic program components in the windows systems area and adjust registry keys. Aggressive protection settings in some anti-virus programs prohibit these normal installation processes and may not present appropriate warning messages.

If a systems re-boot does not solve your installation problems, consider temporarily disabling the anti-virus software during the GBM Mobile Manager Installation process. Re-enable anti-virus operation once the software has been installed.

2. Installation Problems – Loading GBM Mobile a PDA

Occasionally GBM Mobile or the embedded MapInfo Map X Mobile sub-system will refuse to install on a PDA. On all occasions this has been tracked down to one of the following conditions:

Insufficient storage memory – Windows needs to copy the installer file to the mobile device and then uncompress it before installation can commence. GBM Mobile will provide an error message if there is not enough free space for these operations.

Free up some space by moving or deleting files from the mobile device. Failed installations may leave unnecessary files in the My device\TEMP folder.

Insufficient virtual memory – One quirk of the Windows Mobile operating system is that programs need to be loaded in contiguous blocks of virtual memory. Depending on the order in which programs start and terminate, the available memory can become fragmented.

Do a soft reboot of the mobile device to clear up virtual memory and retry the installation. We recommend retrieving any critical data from the mobile device before doing any type of system reboot although a soft reboot on Windows Mobile 5 or Mobile 6 devices should not affect any stored programs or data.

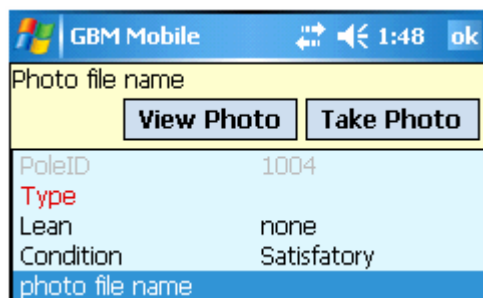
Operating System Malfunction – Depending on the operating history of the mobile device software installation may fail due to a malfunction of the Windows Mobile operating system.

On rare occasions it may be necessary to do a hard re-boot of the device to clear this malfunction. Hard re-boot returns all factory settings. A hard reboot will also clear data and programs. Retrieve any critical data before doing a hard reboot.

3. Camera Configuration

If your PDA supports an integrated camera, GBM Mobile can be configured to write the name of the photo file directly into a data field through a GBM Mobile Custom Form.

Refer to section 3.2.2.4.6 (Automatic Values) of the GBM Mobile user manual for instructions on setting up a custom forms that use the automated “photograph” data entry method.



GBM Mobile Custom Form

Data Field	Visible	Editable	Searchable
Photographs Name	Yes	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GBM Mobile Manger Edit Form

Correctly configured custom forms will present with a “photo” button. Clicking the button should start up the camera and once a photograph is taken, the photo filename should appear in the data field.

If the photo button does not appear at the top of the custom forms screen when you select the destination data field, check that the custom form is set up properly as described in section 3.2.4.6 of the user manual. Be sure to use the automatic method “photograph”. Do not use “Target Photograph” unless you are operating with ike hardware.



Devices...

To access the camera you will need to make it available to GBM Mobile by checking the appropriate box on the devices screen.



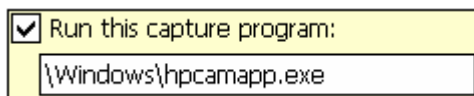
Settings ▶

Then you will need to configure the selected camera through the settings menu.



You may also need to adjust the device specific settings to match those of used by the vendor’s camera program. There are two important settings. They are both accessed through the “devices” button on the camera settings screen.

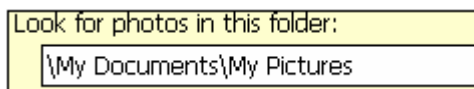
Capture Program – This setting tells GBM Mobile how to start up the PDA camera program when you click the “take photo” button on a custom form.



If nothing happens when you click the “Take Photo” button, check the PDA documentation to work out how to start up your camera program and enter the command into this box.

If you are unable to activate the camera programmatically, it is still possible to use the camera with GBM Mobile if you can start up the camera from a hardware button. Select the destination data field in the normal manner and click the hardware button rather than the GBM Mobile “take photo” button.

File watch location – GBM Mobile works through a file systems watcher. If a new file appears in the target folder when the target data field is selected in an open custom form, GBM Mobile will write the file name into the form.



This item needs be set to the folder where the camera program (provided by the PDA manufacturer) writes the image files. Camera programs usually provide a configuration panel to specify the folder where photographs should be placed.

Operate the camera program manually and discover where the photographs are written to. Enter that location as the folder that GBM Mobile watch when it is looking for new photographs.

The file watch location is where the camera driver writes the files. When GBM Mobile finds a photo file, it will move the file to the final storage destination that has been set through the main camera settings screen.

4. Software Editions - GPS Support

GBM Mobile standard edition will work with any GPS that operates with the standard NMEA data format.

Customers who need to use the proprietary Trimble TSIP data structure or the binary data format provided by ike devices will need to upgrade to the special GBM Mobile for Trimble or GBM Mobile for ike editions.

You will need a special license key to install these editions on your PC and will need to select the appropriate edition when installing GBM Mobile onto the PDA from Mobile Manager on the PC.

For further GPS trouble shooting assistance refer to sections 2.3.5 and 2.3.6 of the GBM Mobile user manual and in particular to the trouble shooting notes at the end of section 2.3.6.

5. GPS Failure – Inbuilt GPS units

GBM Mobile V4.19 and later provides a configuration option for turning off static navigation settings on devices that use the SiRF Star III GPS chip. Refer to Technical bulleting No 9 for more information on static navigation.


Some devices, notably those from HTC do not respond appropriately to SiRF internal commands and lock-up in a binary data format. GBM Mobile reports that the device does not appear to be operating with a SiFF GPS chip and will present the text “invalid format” on the status line at the bottom of the map.

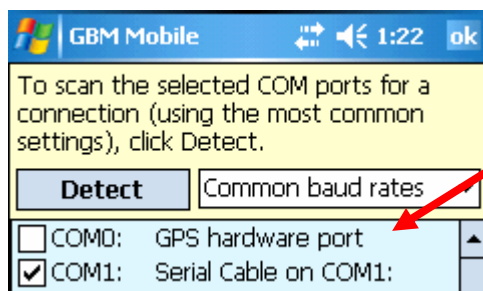
This condition can be triggered in two ways. Some HTC PDA units do accept the SiRF command to stitch the GPS into Binary Command mode but do not accept the second message instructing them to switch back to NMEA mode. We suspect the messages are being intercepted by processes internal to the QUALCOM processor chip.

In some Windows Mobile implementations problems can arise when the GPS is connected through an internal software port rather than directly to the GPS hardware port and our processes attempt to modify the static navigation settings internal to the SiRF Chip.

You will need to reset the device and disable the SiRF static navigation setting before reconnecting the GPS.


Reset the internal GPS by removing and then re-inserting the battery. This will clear the operating state of the GPS and processor chips.

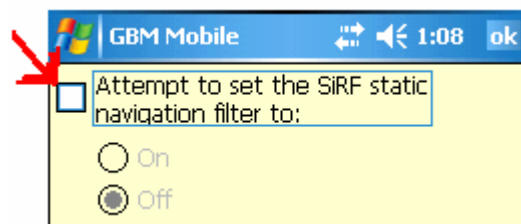
 *If GBM Mobile is connecting through a Windows Mobile GPS port, change the GPS settings to use the direct hardware connection. Normally a GPS auto-detect will find the GPS hardware port rather than the software port.*



If your PDA manufacturer sets the appropriate registry keys, information on GPS ports will be available on the GPS detect screen. Otherwise you may need to try the ports in turn or refer to the manufacturer's documentation. Always use the hardware port.

If the problem persists, change the software settings so that GBM Mobile does not attempt to communicate directly with the GPS unit.

 *Access the SiRF static navigation controls through the NMEA GPS Chipset settings*



Uncheck the box to ensure that GBM Mobile does not send SiRF specific configuration commands to the GPS.