



**Compass**  
**Version 2.4**  
**For Windows Mobile™ Handhelds**

**User Manual**



Last Updated: October 3, 2006

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# 1. Compass key Features

Compass utilizes values emitted by GPS receiver devices to provide accurate positioning data to mobile users.

This module communicates with most type of GPS devices (NMEA-0183), initializes the connection between the GPS and the PDA and manages the GPS information such as current position, altitude, speed, movements, and give odometer and speedometer information.

Compass is the basic companion tool to travel around the world: connect a GPS receiver to get navigation indications.

## 1.1 All-purpose navigation tool

Compass provides affordable navigational support for aviation, boating, automobile (on and off-road), hiking, cycling, touring, rally racing, motorcycle touring, ballooning, scuba diving, fishing, hunting, paragliding, mountain climbing, ultra-light flying, canoeing, snowmobiling, athletic training, outdoor education, geo-caching, mapping/GIS, mining, military training, surveying, site inspection, field data collection, security, search and rescue or any application where location is important.

## 1.2 GPS navigation with most GPS devices (including Bluetooth)

Connect a GPS (Global Positioning Satellite) device to your PDA, and use Compass to navigate. Compass™ is compliant to all National Marine Electronics Association (NMEA-0183) GPS receivers. The GPS feature is optional, and Compass™ is able to work with or without a GPS device connected. But with no GPS device connected, there is no GPS data such as altitude, speed, heading, etc... This information is emitted by satellites and only readable by GPS receiver. Rand McNally/Magellan Companion, NavMan, Nexian HandSpring, Delorme, Garmin, Eagle Delorme Earthmate,...

## 1.3 Geographic information

Compass acts as a real life compass providing accurate information about current location, elevation, speed, and direction... It also offers odometer and speedometer functions that monitor movements during your trip in terms of trip distance, Total moving time, average speed, and maximum speed.

## 2. Software Characteristics

### 2.1 Compatibility: **Windows Mobile™ Pocket PC**

Compass now supports the Windows Mobile™ Pocket PC Platform technologies: Windows Mobile CE 2003 and Windows Mobile 5.

### 2.2 In the package

The program comes in two forms of Windows Executable Setup program:

The desktop form contained in install.exe file must be installed on your Windows Mobile Pocket PC from your desktop

Whereas the PDA form contained in the autorun.exe file must be installed directly on the PDA itself.

### 2.3 Localization

Compass version is available in English, French or German. The choice of the language is based on the regional setting you chose when initializing your pocket PC device.

*TIP - To change the language version, first click on the Windows Mobile Start Menu, and choose Settings. From the Settings screen, select the bottom tab System, scroll down to be able to select the Regional Settings icon.*

*Then select the Region and language from the top dropdown list and restart the application.*

*If you select a region with a language not supported, Compass language will be reverted to English.*

## 3. Hardware Requirements

### 3.1 **Windows Mobile™ Pocket PC**

Windows Mobile™ Pocket PC platform: Windows Mobile CE 2003 and Windows Mobile CE Windows Mobile 5 (VGA display and screen orientation support)

### 3.2 **GPS devices**

Compass™ is compliant to all National Marine Electronics Association (NMEA-0183) GPS receivers, and supports the DeLorme Earthmate™. The GPS feature is optional, and Compass™ is able to work with or without a GPS device connected. Rand Mc Nally/Magellan Companion, NavMan, Nexian HandSpring, Delorme, Garmin, Eagle Delorme Earthmate...

## 4. Software Installation

The Compass application is available online on the internet from <http://GPSPilot.com> site or any authorized resellers sites.

The program comes in two forms of Windows Executable Setup program:

The desktop form must be installed on your Windows Mobile Pocket PC from your desktop

Whereas the PDA form must be installed directly on the PDA itself.

### 4.1 Before downloading

Before downloading Compass software, please ensure that:

- You have read and accepted the License Agreement as posted on the Download Page and in the Install program.
- Your hardware configuration: Compass supports ARM Processor, and Windows CE 2003 and Windows Mobile 5 Operating System devices.
- You have enough memory available to meet the specified system requirements.
- You have enough disk space available on your PC to download and install the GPS Pilot tools.

### 4.2 Downloading the application

We recommend saving GPS Pilot file to your Windows Desktop so you'll be able to store the file locally for later use.

From <http://GPSPilot.com> site, press the GPS Pilot Compass package. The File Download dialog box will appear that will let you download Compass install executable file. This file is safe, has been certified to be Virus free, and it will not access any private information on your PC.

Press the Save button and specify a folder on your computer to save to. Be sure you remember this folder so you can find the program after the install is complete.

### 4.3 Installing the application

#### 4.3.1 Installation from the desktop via ActiveSync

Prior to install the software on your Pocket PC, ensure your Pocket PC is nested in its cradle and the ActiveSync program is running.

Right click on the installer.exe icon and press Open from the Popup menu. The Install screen will appear: follow the installation program instructions.

The installation program will install files to your computer's hard drive, and then establish a link with your Pocket PC.

*TIP - When ActiveSync is ready to install the software to your Pocket PC, you'll be asked if you want to install the program to "the default installation directory." If you do not have a storage card, or want to store the program in main memory, select "Yes." If you do have storage card, and want to store the program there, select "No." If you select "Yes," the program will install on your Pocket PC's internal memory. If you select "No," you will given a menu where you can select where you would like the program installed*

Once installed, proceed to the Getting Started section.

### 4.3.2 Installation directly on the Pocket PC device

Move the autorun.exe file to your Pocket PC using ActiveSync or by storing it on external memory card. Run the install directly on your Pocket PC by tapping the .exe file after you move it over.

*TIP - For automatic installation from the sdcard, install the autorun.exe file under the memory card /2577 root directory. After the copy of the file, the installation will automatically start.*

*IMPORTANT - The .exe file may appear to be a .zip file on your desktop. It does NOT need to be extracted, move the entire .cab file to your Pocket PC and run it from there. Once installed, proceed to the Getting Started section*

## 5. Getting Started

Before starting, ensure that the Compass application has been installed on the device. Compass is installed to your Programs folder on your handheld. To access the Compass application, first click on the Windows Mobile Start Menu, and choose Programs

### 5.1 Launch the Compass application



From the Programs screen, select on the Compass icon to start the application. You may need to scroll down to locate the application icon. If the application cannot be found, you will need to run the installation program from your PC again. Ensure ActiveSync is running before executing the install.

### 5.2 Register your license code in the about box

Now that Compass is installed on your Pocket PC, you can enter your registration license code to unlock the application.

Press on the Compass icon on the Pocket PC main view, to start the application. At the first execution of Compass, the Preferences window will display the About Box data to allow entering the license code you have received during the purchase process.

This screen contains important information you may need to refer to if you are looking for help or where to purchase the application.

Preferences 2:33 ok

About **Tracker 2.4**

ID **0050-0065** Code

 Powered by **GPS Pilot .com**

Tracker SwissGeo

Display Settings Timers About

**Program Version:** The version number is listed next to the Compass title. If contacting GPS Pilot Support, you will need to specify this version number.

**Web:** Web site for information, support, purchasing, and obtaining updates.

**Code:** When you purchase, you are given a registration key which is encoded to your Owner name or your UID (Unique Device Identifier).

**UID:** The handheld device Unique Device Identifier. This ID is a unique number for the individual handheld device. You are required to provide this name for purchasing the application. Here the ID is 0050-0065

Enter your registration key into the Code field and press OK, to unlock full functionality of the program. If you enter an incorrect code, the program will exit immediately.

**Screen Shot 1: Compass Registering**

## 6. Using GPS navigation

Compass GPS navigation module utilizes values emitted by GPS receiver devices to provide accurate positioning data.

This module communicates with most type of GPS devices (NMEA-0183), initializes the connection between the GPS and the PDA and manages the GPS information such as current position, altitude, speed, movements, and give odometer and speedometer information.

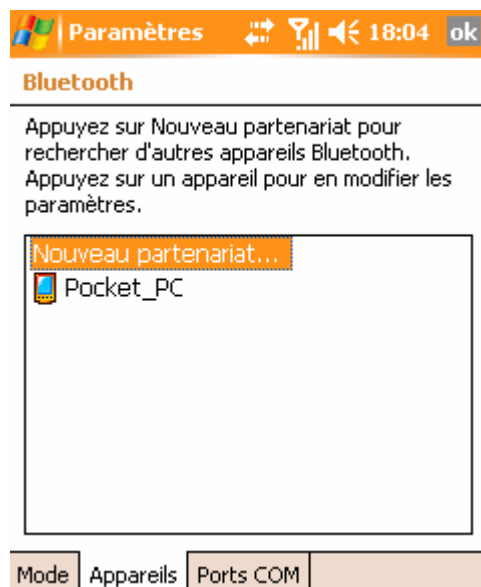
*TIP - A GPS device is not required to use GPS Pilot software. Indeed, GPS Pilot software can be used as a digital hand held atlas with no GPS navigation assistance dimension. But attention, with no GPS receiver, do not expect to get GPS data such as altitude, speed, heading, etc... This information is emitted by satellites and only readable by GPS receiver.*

*TIP – To save the PDA battery power while GPS tracking, your screen can be automatically switched off. See the GPS Stay-on option in the Preferences section.*

### 6.1 Connection to Bluetooth GPS

To connect your Bluetooth GPS to your PDA, exit the Compass application, and check if the Bluetooth connection is triggered on your PDA.

#### 6.1.1 Identify your Bluetooth GPS



**Screen shot 9:  
Bluetooth configuration**

If your GPS has not been identified yet, select the new partnership option.

The system then starts the blue tooth devices detection process. Once the Bluetooth GPS device detected, its name is displayed on the resulting list. Select its name and click on the next button.

On the next screen, enter the GPS connection password to allow secure communication between the 2 devices (usually it a sequence of 4 digits, please refer to the User Manual of your GPS device for details). Then select the next button.

Select the serial port option in the next screen, and click on the Terminate button.

## 6.1.2 Select your GPS Communication port



Screen shot 10:  
Bluetooth configuration

Now click on the COM Ports tab, and select the new output port from the list.

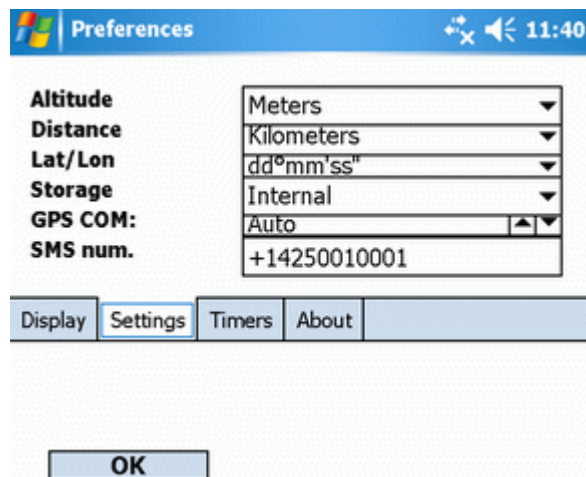
Initialize your Bluetooth GPS to this new port and click on the next button.

Finally, select the port number that you wish to use for your PDA-GPS connection.

And click on the Terminate button to end this initialization. You can now run the navigation program Compass

## 6.2 Initialize your GPS

Two parameters need to be checked, to establish the communication between your PDA and your GPS device,



Screen shot 11: Initializing GPS Com port

### Communication port:

In the Preferences screen available via the main menu option Preferences, click on the option tab. Then check if the GPS com (communication port) is initialized to the correct one. The auto setting will allow the system to automatically detect the com port for you.



Screen shot 12:  
GPS menu

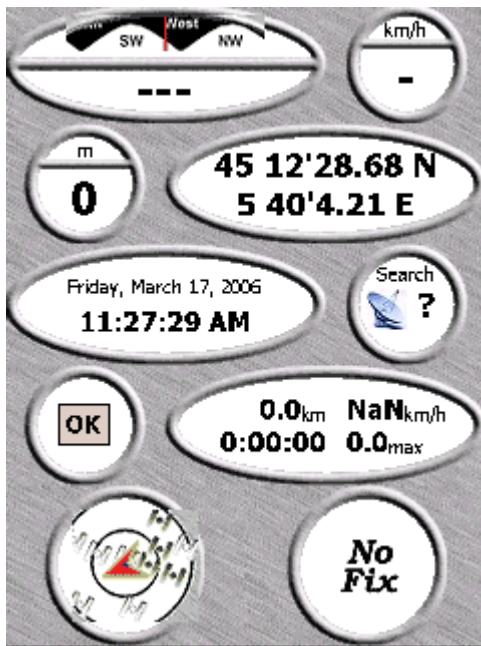
### GPS activation:

Activate the GPS by pressing the GPS→Start option from the main menu

**TROUBLE SHOOTING** - If you are using a Pocket PC device with an integrated GPS, we do recommend you use the integrated GPS, to avoid communication conflict. However, if you wish to use an external GPS (GPS Bluetooth for instance), verify that the external GPS communication port is different from the one send by the internal GPS receiver (usually COM 7)

**TIP** - If the GPS is looking for satellites for a while, init the GPS with a default location by centering the current map to a close POI

## 6.3 GPS reading for expert users



Screen shot 15: GPS details screen

The GPS details screen displays expert location information detailed below from left to right, top to down:

### 6.3.1 Real life compass

The first 2 lines are dedicated to real life compass data with:

- Magnetic heading displayed on a graphical moving compass and on a numerical value form
- Speed information
- Altitude, and latitude and longitude of your current position.

### 6.3.2 Universal time

Then you can read timing information about current time, offset from GMT and date. This information is based on the parameters you initially entered on your PDA. If you wish to change these data, use the appropriate Windows Mobile native programs. From the Start Menu, and choose the Settings option, then select the tab System and the Time, Regional Settings programs.

### 6.3.3 GPS status

The GPS status icon gives information on the connection with your GPS Receiver. A beep signals any changes in the connection status.

The status of a GPS connection can be:



#### GPS disabled.

This happens only when there is no GPS plugged in.



#### GPS not found.

This means that your Palm is not receiving any information from the GPS. Either the connection between the Palm and the GPS is deficient,

Or your GPS device is not recognized. In this case, set GPS type to another entry and re-select the right entry. If you still get Not Found status, check power and connection of your device. – Details about hardware connection are listed in the GPS Support section –



At this stage, your PDA is receiving information from satellites but the number of satellites is not sufficient to get a fix.



Your GPS device now gets valid signals and is now feeding continuously your PDA with location information. The number displayed underneath OK, represents the number of detected satellites. When GPS status is OK, information such as magnetic heading, speed ... is displayed.

### 6.3.4 Odometer and speedometer

The GPS module offers odometer and speedometer functionality in order to monitor movements during your trip in terms of trip distance, Total moving time, average speed, and maximum speed. The GPS→Reset button allows re-initializing the odometer and speedometer to zero at anytime

### 6.3.5 GPS satellites signal status

This sky view displays the current status of the satellites signal reception: by showing the satellites detected and their location.

The sky view array represents the positioning of the satellites in the sky overhead with your position in the center of the 2 circles. The outer circle indicates the horizon while the inner circle a position 45 degrees from the horizon. The number displayed indicates the number assigned to those satellites. The directional arrow at the center shows direction you are heading to.

The GPS receiver can from time to time lose satellites signals due to interference from tree cover, buildings, etc... a beep signals the lost and fix of satellites signals.

### 6.3.6 GPS fix status

The GPS fix status informs about the acuity of the position fix. Upon to the number of satellites detected, the GPS receiver is able to collect the different data to calculate accurately the position.

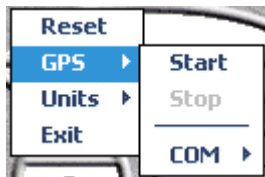
**No fix** means that the GPS receiver is not acquiring enough satellites information to compute position coordinates.

**2D** means that GPS position fix is two-dimensional. The acquired data includes only horizontal coordinates (no GPS elevation). It generally requires a minimum of three visible satellites.

**3D** means that the GPS position fix is three-dimensional. The acquired data includes horizontal coordinates, plus elevation. It requires a minimum of four visible satellites.

## 6.4 GPS main Menu

By tapping anywhere on the GPS screen, you can bring up a pop up menu allowing the different GPS functions:



### GPS reset.

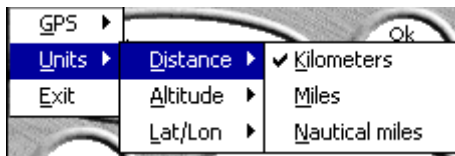
GPS→Reset enables to reset to zero odometer and speedometer data.

Screen shot 16:  
GPS menu

### GPS activation

GPS→Start and GPS→Stop enable to activate and stop the GPS signals reception.

GPS→COM initializes the GPS communication port to the correct one. The Auto will allow the system to automatically detect the com port for you.



Screen shot 17: Units menu

GPS Pilot supports International settings for units of measure. Units for speed, altitude and latitude, longitude coordinates can be selecting Units in the GPS screen pop up menu. Altitude can be defined meters or feet. Distance is supported in miles, kilometers, or nautical miles. Latitude/longitude can be entered and read in degree, minutes, seconds (N/S/W/E dd°mm'ss") format or in Degrees and decimals (+/- dd.dddd) formats or in Swiss coordinate system (for swissTopo maps with Oblique Mercator on an 1841 Bessel ellipsoid. map projection)

### Units of measure

GPS Pilot supports International settings for units of measure. Units for speed, altitude and latitude, longitude coordinates can be selecting Units in the GPS screen pop up menu.

Altitude can be defined meters or feet

Distance is supported in miles, kilometers, or nautical miles.

Latitude/longitude can be entered and read in degree, minutes, seconds (N/S/W/E dd°mm'ss") format or in Degrees and decimals (+/- dd.dddd) formats or in Swiss coordinate system (for swissTopo maps with Oblique Mercator on an 1841 Bessel ellipsoid. map projection)

Alternatively, you can defined the unit of measure through the Map main menu, option Preferences via the Options tab.

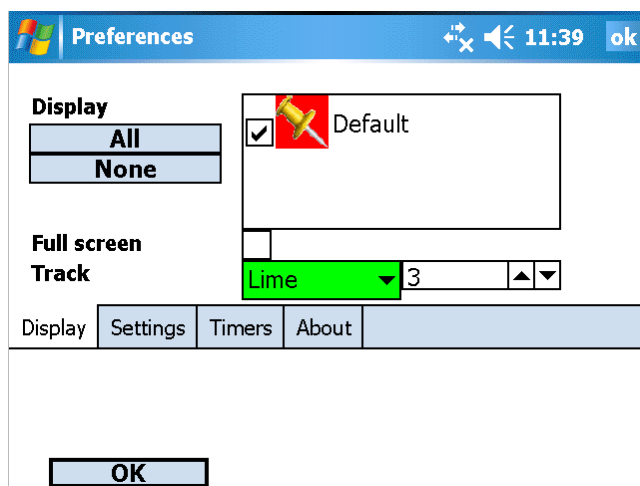
### Exit

This option exits the Compass application.

## 7. Preference Settings

The Preferences screen regroups all the settings to personalize your application. In the following, uniquely the settings available for the Compass version are presented.

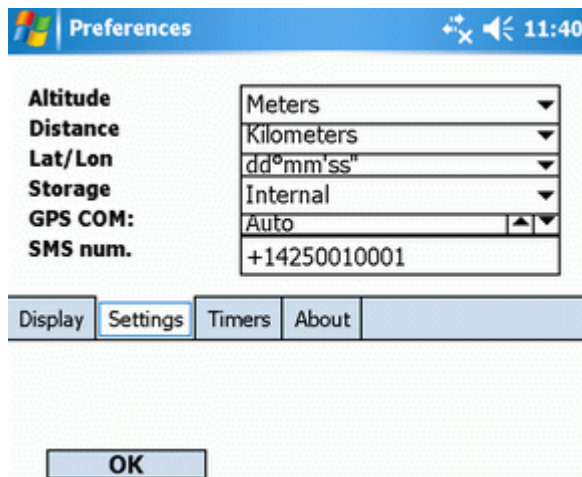
### 7.1 The Display tab



#### Full screen check box

It enables to run Compass full screen on your device, to increase the size of the maps rendering. Uncheck this box, to be back to normal screen view.

### 7.2 The settings tab



Screen shot 2: Settings preferences

#### Units of measure

GPS Pilot supports International settings for units of measure

Altitude can be defined meters or feet

Distance is supported in miles, kilometers, or nautical miles.

Latitude/longitude can be read and entered in degree, minutes, seconds ( N/S/W/E dd°mm'ss") or in Degrees and decimals (+/- dd.dddd) formats.

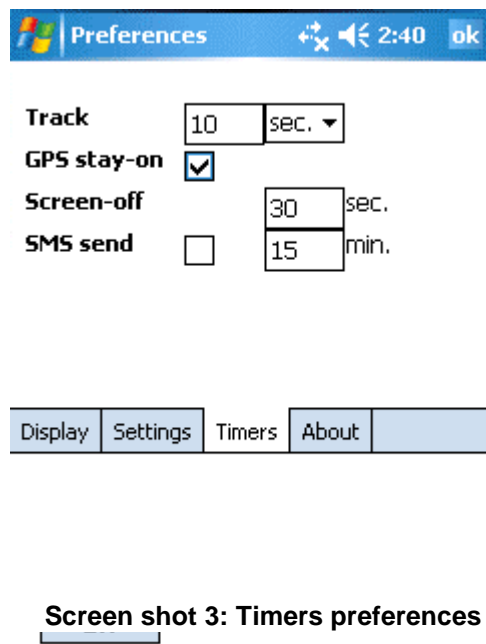
#### Storage space

Storage space can be set by default to Storage card; File Store or internal memory

#### Communication ports

GPS Com allows initializing which output port is in communication with your GPS device.

## 7.3 The Timers tab



Screen shot 3: Timers preferences

### GPS stay-on and Screen off

Only available in GPS connected mode.

The GPS stay-on option allows your device screen to be automatically switched off to save battery power while a GPS is on.

Mark the check box and fill up the Screen off box to define the delay before the automatic screen switch-off procedure.

## 7.4 The About tab



Screen shot 4: About Box

The About Box data to allow entering the license code you have received during the purchase process.

This screen also contains important information you may need to refer to if you are looking for help or where to purchase the application.

Program Version: The version number is listed next to the Compass title. If contacting GPS Pilot Support, you will need to specify this version number.

Web: Web site for information, support, purchasing, and obtaining updates.

Code: When you purchase, you are given a registration key which is encoded to your Owner name or your UID (Unique Device Identifier).

UID: The handheld device Unique Device Identifier. This ID is a unique number for the individual handheld device. You are required to provide this name for purchasing the application. Here the ID is 0050-0065

Enter your registration key into the Code field and press OK, to unlock full functionality of the program. If you enter an incorrect code, the program will exit immediately.