BeeLineGPS™

Pocket PC Cache Navigation & Management Made Simple!™

May 25, 2007

User Manual

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WARNING AND PRECAUTIONS

Always be aware of your actions and surroundings while operating BeeLineGPS. Do not operate BeeLineGPS while driving a vehicle. BeeLineGPS is not designed as a primary navigational aid. Failure to pay full attention while operating the vehicle and road conditions while operating the vehicle could result in an accident or collision with property damage and personal injury.

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Introduction

BeeLineGPS is a Pocket PC application that will assist in waypoint and cache navigation. Some of its features include waypoint management, active waypoints, and advanced navigation features with over 100 icons to represent marked positions.

Active waypoints allow individual waypoints to trigger a sound file and show an active message when the current position is within a specified distance. This technology can be used for voice guided tours as well as notifications of safety or red light cameras. The active message includes a compass showing direction, distance, and name of the active waypoint

The advanced waypoint database management can manage thousands of waypoints while maintaining high performance navigating. With this technology in place geocaching features are included to manage the life cycle of a geocache. There are 10 icons to assist in the status of the geocache such as, *identifying, found*, *logged*, *to do*, *attempted,* as well as many other cache states.

Requirements

- Pocket PC 2002, Windows Mobile 2003 or Windows Mobile 2005
- GPS Receiver with NMEA output
- 5MB or more free RAM

NMEA Sentences required:

NMEA ID	Description
GGA	Global Positioning System Fix Data - reports time, position and fix related data
GSA	GNSS DOP and Active Satellites - reports which satellites are being used for navigation and DOP (dilution of precision) values
GSV	GNSS Satellites in View - reports the signal to noise ratios for each satellite tracked as well as the azimuth and elevation of each satellite
RMC	Recommended Minimum Specific GNSS Data - Reports position, speed over ground, and date

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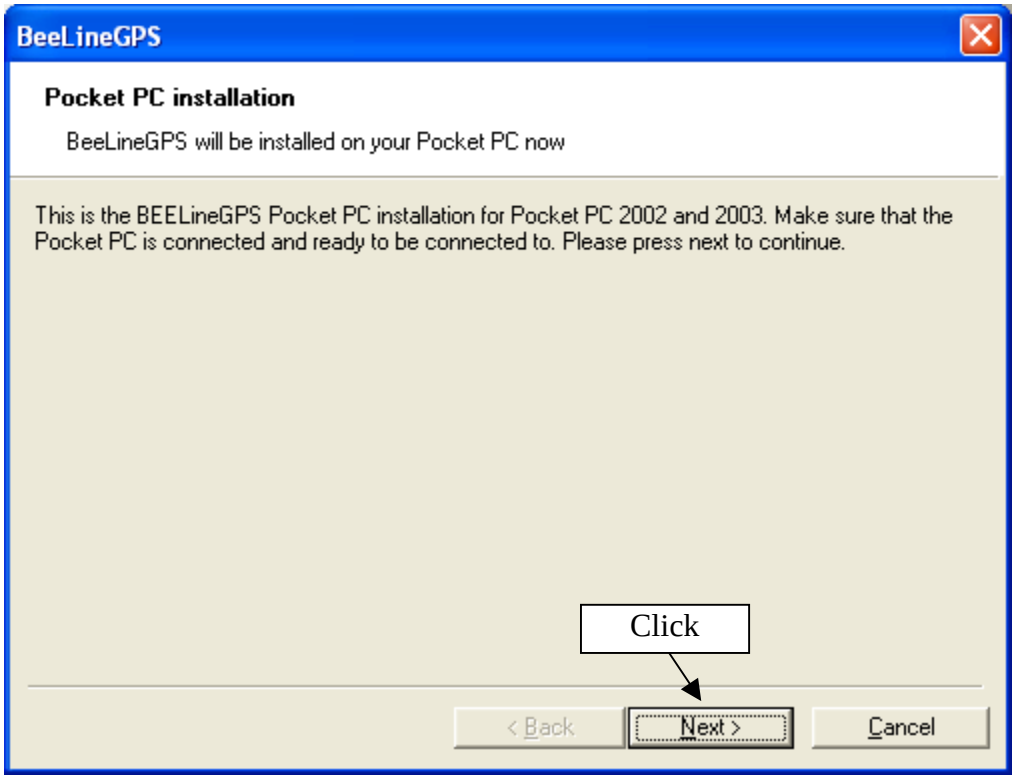
Installation

There are two methods of installing BeeLineGPS. The first is using the install program on a PC (*BeeLineGPSInstall.exe*) and the second using the .CAP file directly from the Pocket PC (*BeeLineGPSInstall.HPCPro_ARM.CAB*) while supporting Windows Mobile 2003 and Pocket PC 2002 platforms.

It is recommended to download the latest version of BeeLineGPS from www.VisaulGPS.net.

Installation From a PC

Make sure that you have the Pocket PC connected to the desktop computer and that you ActiveSync active and run "*BeeLineGPSInstall.exe.*" Follow the instructions.



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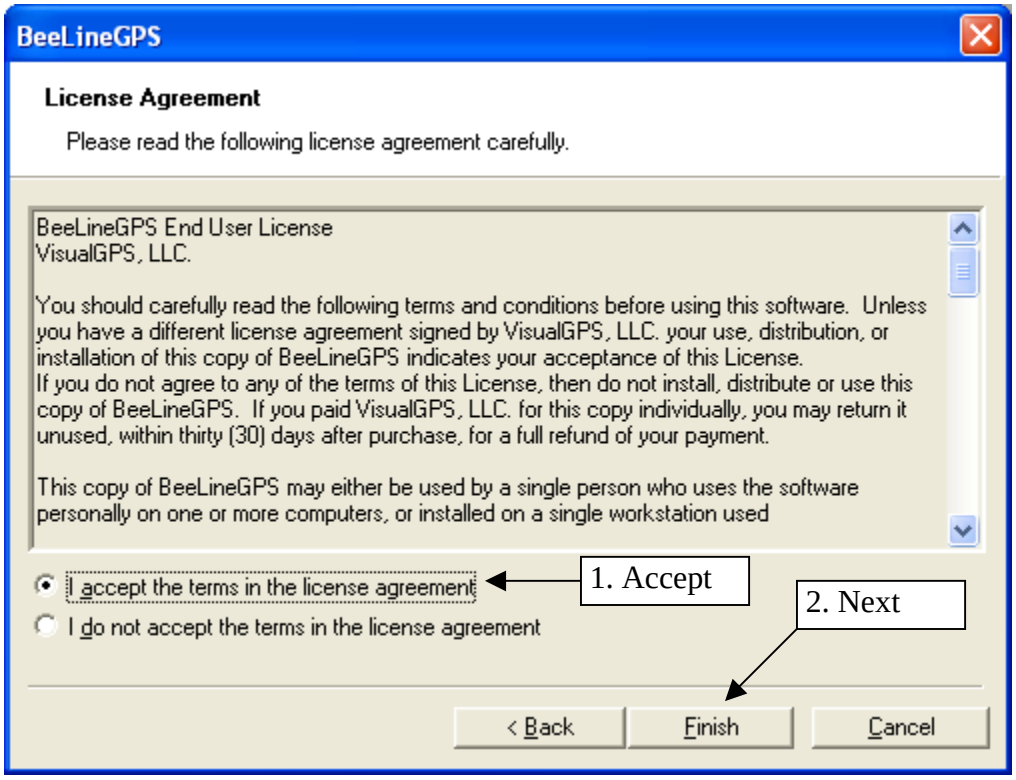

At this step ActiveSync will start and install BeeLineGPS. After the installation is complete you may run BeeLineGPS from the programs

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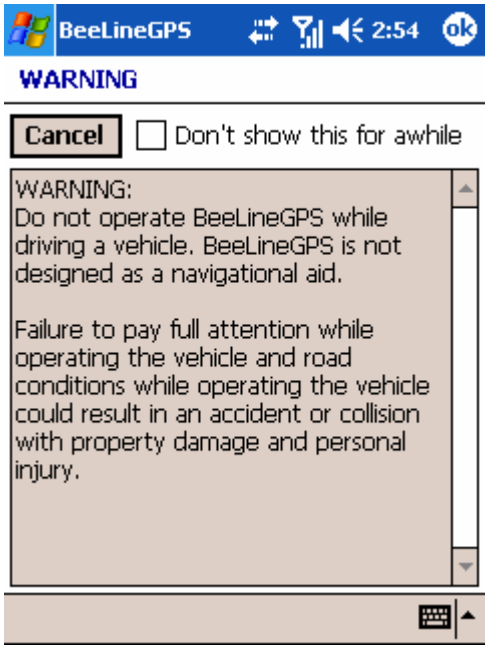
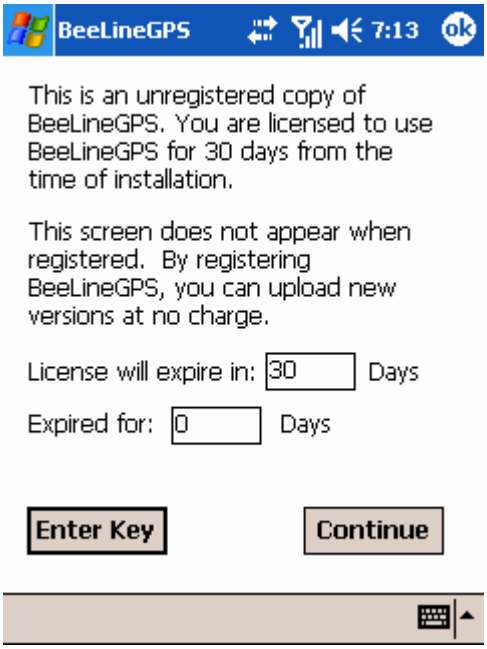
Running BeeLineGPS For The First Time

Warning and License

You can start BeeLineGPS from the programs menu of your Pocket PC. When BeeLineGPS is run for the first time, it will show several screens. The first is the warning screen. If you agree to the terms of the warning, select *Agree*.





The next screen is the License Page. This page only appears when the product has not been purchased or registered. It shows the number of days left in the evaluation period. BeeLineGPS is fully functional during and after the evaluation period. However the evaluation license is only valid for 30 days from the first time BeeLineGPS is run. You may purchase BeeLineGPS and acquire a license key by visiting the BeeLineGPS website at www.VisualGPS.net/BeeLineGPS and selecting *Register/Purchase*.

If you have the registration license key, you can select the *Enter Key* button and enter the registration key now. If you choose to enter the registration key, be sure to enter this number exactly as it appears. It is a case sensitive.

If you choose not to enter the registration key, you can do so at a later time by selecting the menu item *Tools->Enter License Key*.

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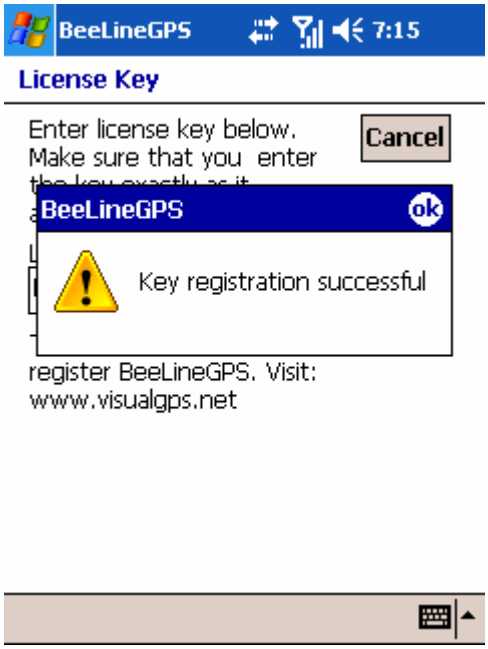
Registration

When entering the Registration Key, make sure that it is typed in exactly as it appears preserving the case of the text. Typically, there are numbers and alpha characters mixed in with the registration key.

After the key is entered, select the OK button at the top of the screen. BeeLineGPS will then verify the key and immediately notify you if it was a successful key entry.



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Initial Setup

The next screen shown is the Initial Setup screen. This screen will assist in setting up the GPS receiver. If you know the communications port and the baud of the GPS receiver, select Manual Setup and then OK. The communications dialog will show. Simply follow the instructions.

Automatic Setup will try to search for the GPS receiver using the available communications ports on the Pocket PC device. If you select Automatic Setup, the following screen will appear and the GPS search will be initiated.

Please note on some Pocket PC platforms, the built-in serial ports may be used for various hardware. There may be a chance that the system may lock up. If this occurs, you may have to reset the device.

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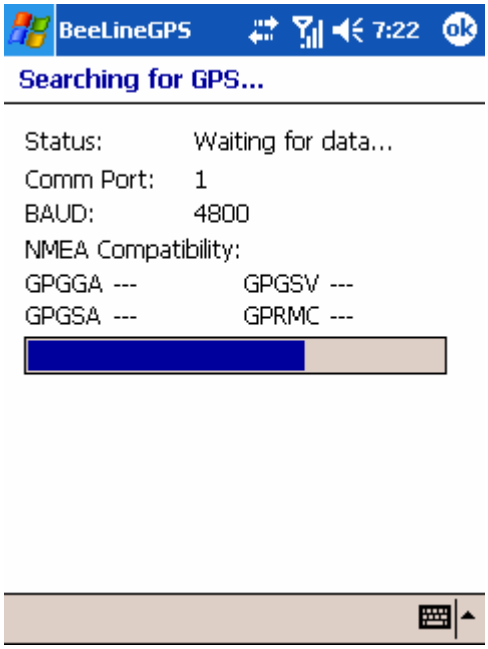
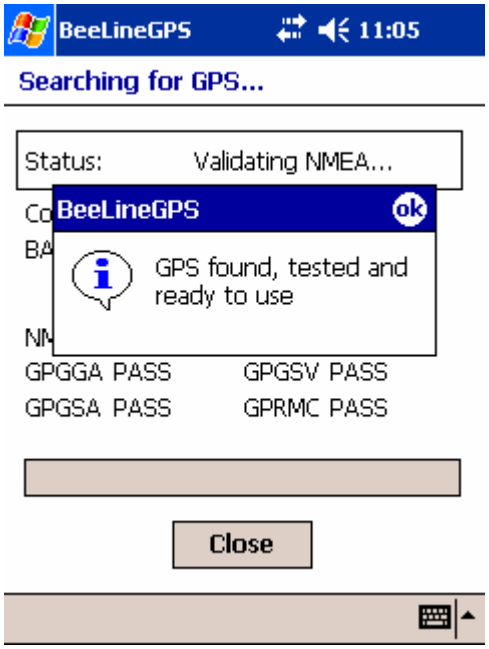
Below shows the automatic GPS search window. It may take a few minutes to locate the GPS receiver. The search will open each serial communications port at various baud rates and listen for the GPS NMEA data. After receiving NMEA data, the automatic GPS setup will verify the output by listing for specific NMEA data.





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Screen Overview

BeeLineGPS has six main screens. These screens are defined as Signal Quality/Navigation, Azimuth/Elevation, Panel, Trip, Map and Analysis. Together they provide the user with GPS status for quick and precise glances.

Navigation between screens can be accomplished by tapping on the tabs or using the left and right joystick keys to switch pages.

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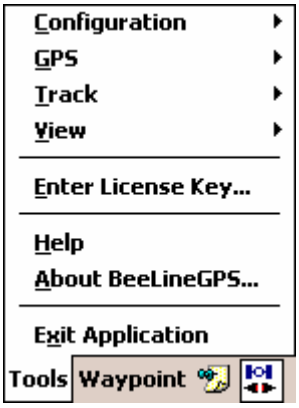
System Menu

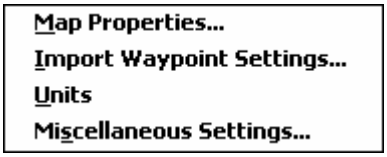
The “System Menu” bar is present in all of BeeLineGPS’s tabbed windows. There are two top level menu items, Tools and Waypoint. The Tools menu item has configuration sub-menus for the GPS, waypoint settings and other BeeLineGPS system related items. The Waypoint menu has waypoint related items. Below are descriptions of each menu item.

Tools (menu item)



The Tools menu is one of the system main menus. It is the central place for configuration and system settings for BeeLineGPS.

Configuration



The configuration menu item will show several configuration items.

- Map Properties – Select this menu item to show the Map Properties dialog. See the Map Properties Dialog section for a detailed explanation.
- Import Waypoint Settings – Select this menu item to change the waypoint import behavior. See Import Waypoint Settings section for more information.
- Units – Select this menu item to setup the program measurement units. This includes distance, speed, altitude and position formats (Latitude/Longitude).
- Miscellaneous Settings – Select this menu item for miscellaneous settings. Currently settings include automatic power suspend modes.

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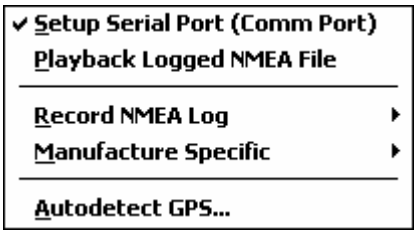
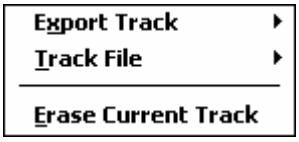
GPS



The GPS menu item holds all the different GPS settings and utilities.

- Setup Serial Port (Comm Port) – Invokes the serial port communication settings dialog.
- Playback Logged NMEA File – Select this menu item to play back a previously logged file.
- Record NMEA Log
    - Start – Starts a log session
    - Stop – Stops current log session
- Manufacture Specific
    - Setup SiRF NMEA Output – Select this menu item to send setup strings to the GPS receiver. If you know that the GPS is a SiRF based GPS engine and it is not sending all of the correct NMEA strings, then select this menu item.
- Autodetect GPS – Select this menu item to search for a GPS receiver.

Track



The Track Menus help manage some of the track items such as export, erase and where to store the track file.

- Export Track – Choose this menu item if you like to export a track file.
    - Export to CSV file… - (Comma separated value)The format is “Latitude, Longitude, Altitude, New Track Segment”.
    - Export to KML file… - This export option will export the track to a Google Earth track file format
    - Export to GPX file… - This export option will export the track to a GPX track file
- Track File
    - New – Creates a new track file at the specified location.

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  - Open – Opens an existing track file. When a new track file is opened, this file will become the default location where the track is maintained.

- Erase Current Track – Clears and erases the current track on the map.

View

The view menu will allow you to hide or show specific items.

- Status Bar – Shows or hides the status bar
- Window Tabs – Shows of hides the window tabs. When the window tabs are hidden, you can use the left and right joystick keys to navigate to the next or previous page.

Enter License Key

Select this menu item to show the License Key dialog. This is where you will enter the license key to license BeeLineGPS. To purchase a license, please visit www.VisualGPS.net/BeeLineGPS.

Help

This menu item will invoke the BeeLineGPS help file.

About BeeLineGPS

This menu item will show the version and copyright information dialog.

Exit Application

Select this menu item to close and exit BeeLineGPS.

Waypoint (menu item)

The Waypoint system menu will allow you to manage, select and create waypoints.

Goto Waypoint

This menu item will show a dialog of waypoints. Choose a waypoint to “Go To” and tap on the OK button.

Cancel Goto

Select this menu item to cancel the active “Go To”

Mark Waypoint at Current Position

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This menu item will create a new waypoint at the current position as reported by the GPS receiver. The Waypoint Edit dialog will be shown to allow modification of waypoint parameters.

New Waypoint

Select this waypoint to create a new waypoint. The Edit Waypoint dialog will be shown so you can enter the position and modify other parameters.

Waypoint Average

Waypoint averaging will allow you to create a waypoint at a static location by averaging. Averaging will better your accuracy for the waypoint created.

- Start – Starts a new position average.
- Stop/Done – Stop averaging and create a new waypoint using the new average position.
- Cancel – Stops averaging and does not create a new waypoint.

Edit Waypoints

This menu item will show a dialog of waypoints. Choose a waypoint and tap on OK to edit that specific waypoint.

Delete Waypoints

This menu item will show a dialog of waypoints. You can choose a waypoint and select OK to delete that waypoint. To cancel, simply tap on the “Cancel” button.

Show waypoint on map

This menu item will show a dialog of waypoints. Choose waypoint and tap on OK to display that specific waypoint on the map. The waypoint will be centered on the map screen.

Waypoint Management

Select this menu item to active the Waypoint Management dialog. See the Waypoint Management section for more information.

File Operations

- Export Waypoints – Exports waypoints
- Import Waypoints – Imports waypoints
- Waypoint Database

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- Open – Opens an existing waypoint database file. This file will become the default waypoint database.
- New – Creates a new waypoint database file. This file will become the default waypoint database.

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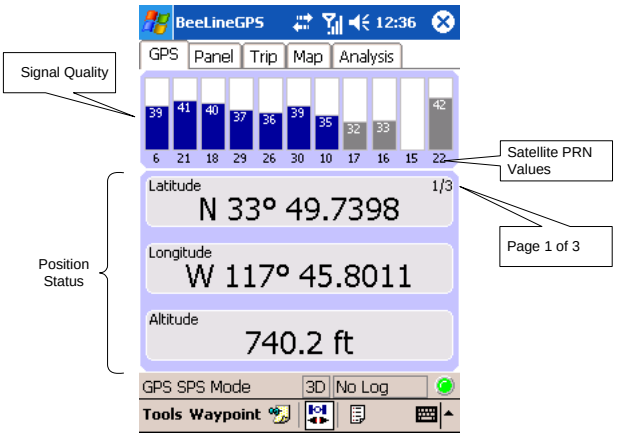
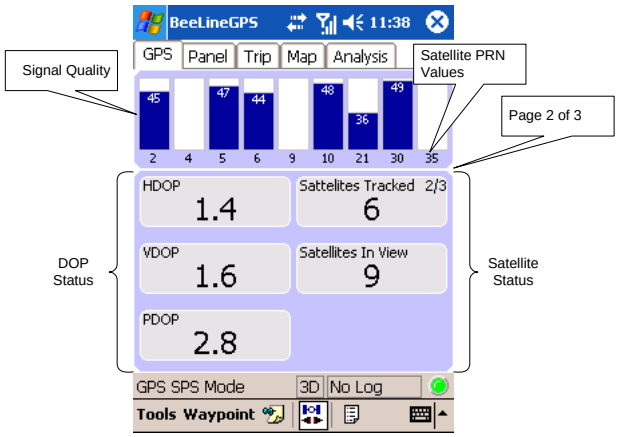
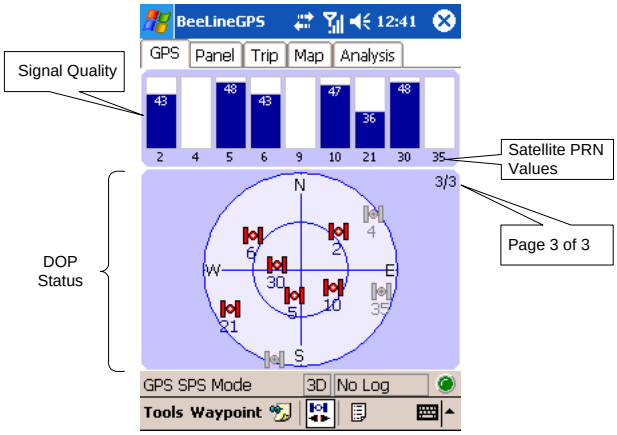
GPS (Tab)

The GPS tab shows GPS signal quality, position, DOP values and satellite azimuth/elevation. Tapping on the screen will switch from the Position status to DOP status. Tapping on the screen once again will switch from DOP/Satellite status to satellite azimuth/elevation. Tapping once again on the screen will switch back to position status.







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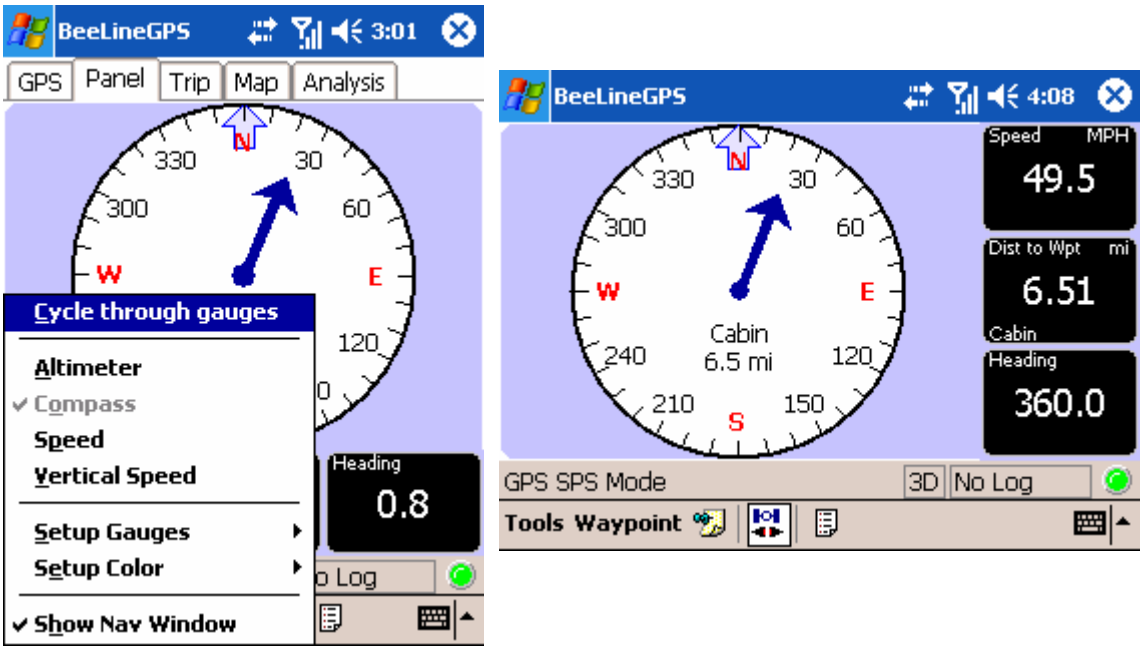
Panel

The panel screen shows the analog representation of speed, direction, altitude and vertical speed. The analog gauges may be displayed one at a time or all four depending on the configuration. By default, a digital navigation window is also shown below the analog gauges. This window may be enabled or disabled.



The alternate menu allows you to select the gauge to be displayed. When *Cycle Through Gauges* is selected, each gauge is displayed for five seconds. Below shows the Altimeter and Vertical Speed selected.

Setup Gauges will allow settings for specific gauges such as maximum speed for the speedometer.

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Gauges

Altimeter

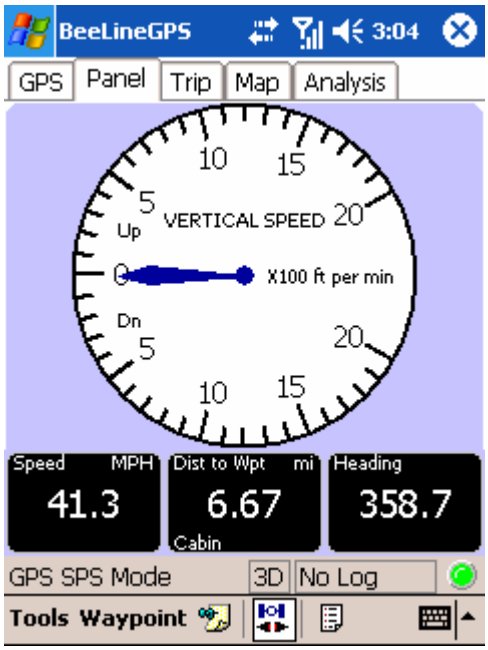
An altimeter is an active instrument used to measure the altitude above a fixed level. The traditional altimeter found in most aircraft works by measuring the air pressure from a static port. Air pressure decreases with an increase of altitude.

BeeLineGPS takes the altitude from the GPGGA NMEA message provided by the GPS.

NOTE: The unit measure (feet or meter) can be selected for the system by selecting menu item Tools->Configuration->Units.

Vertical Speed (Variometer)

Variometers measure the rate of change of altitude by detecting the change in air pressure (static pressure) as altitude changes. Since BeeLineGPS cannot detect air pressure, it will calculate the vertical speed by using the change of altitude vs. time.



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Speedometer

The speedometer shows the current speed the GPS has reported. The speed is taken from the GPRMC NMEA command.

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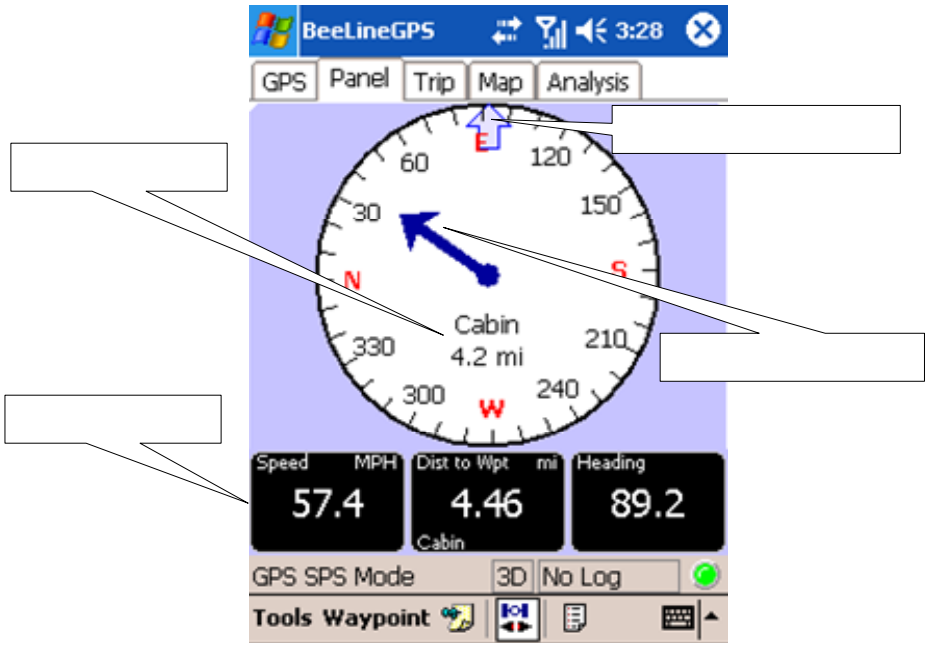
Compass

The compass is a navigational instrument for finding directions on earth. The BeeLineGPS compass will show the direction of travel, distance to the current waypoint “go to” and the direction to the waypoint.

The blue arrow will show the direction of the waypoint in respect to your direction of travel. The direction of travel is shown at the top of the compass. The compass below is showing a direction of travel of 89° and the waypoint, Cabin, is to the left 4.2 miles.



Name and distance to the waypoint

Navigation Window

The Navigation Window may be enabled or disabled. To disable the Navigation Window, tap and hold over the navigation window and select menu item “Show Nav Window”. To enable the Navigation Window, tap and hold anywhere on the Panel Window and select menu item “Show Nav Window”. This is a toggle function and when the Navigation window is enabled, a check mark will be next to the menu item.

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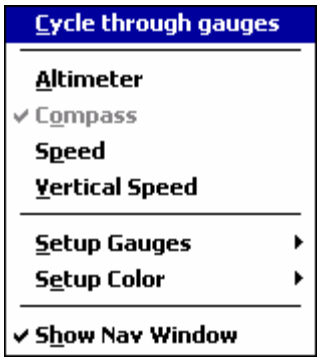
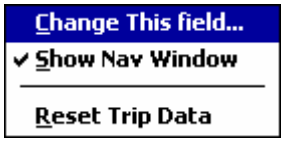
Panel Tap-and-Hold Menu Items



- **Cycle through gages** When this item is selected, each gauge that is selected (Altimeter, Compass, Speed and Vertical Speed) will display for 5 seconds in full screen mode.
- **Altimeter** Selects/Deselects (toggle function)
- **Compass** Selects/Deselects (toggle function)
- **Speed** Selects/Deselects (toggle function)
- **Vertical Speed** Selects/Deselects (toggle function)
- **Setup Gauges**
  - **Speed** Shows a dialog where the maximum speed shown on the analog gauge can be set.
  - **Enable Smooth Mode** will enable a special mode where the gauge will be animated and the new value will be slewed to rather then jump to. When enabled, please be aware that this feature is CPU intensive and is not recommended on slow device. Use at your own discretion.
- **Setup Color**
  - **Use System Color** Sets the gauges to the Pocket PC system colors.
  - **Night** Displays gauges using a black background.
  - **Gray** Displays gauges using a gray background.

When the tap-and-hold function is applied on top of the Navigation Window, the following menu items will be displayed.



- Change This Field… Will allow the user to select from a list of “trip-computer” fields.
- Show Nav Window will enable or disable the Navigation Window.
- Reset Trip Data will reset the trip computer. All items will be reset to zero. For more information on the the trip computer, see the Trip Computer section.

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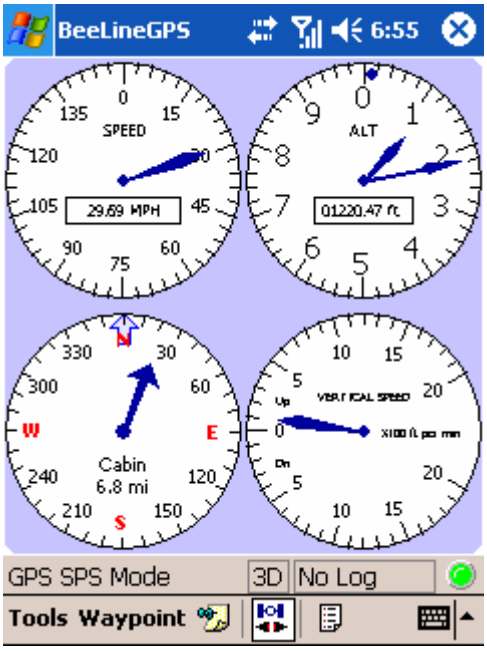

A note on Cycle through gauges

When the “Cycle through gauges” option is disabled and all of the gauges are selected, then all of the gauges are displayed on the screen at one time.

The screen is shown with the navigation window disabled.

When all of the gauges are displayed, “Smooth Mode” will be temporally disabled.

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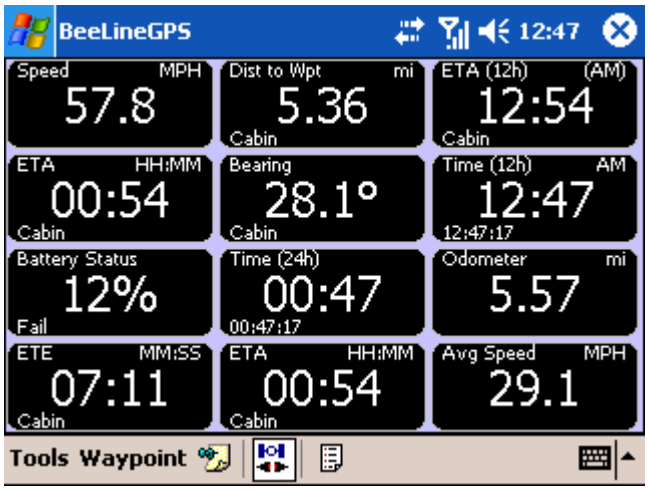
Trip Computer



The Trip Computer is a versatile tool able to monitor over 30 different trip data items simultaneously. The screen can be configured to display one to twenty fields each can be programmed individually to one of many trip computer items.

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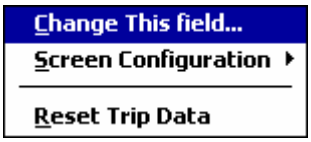
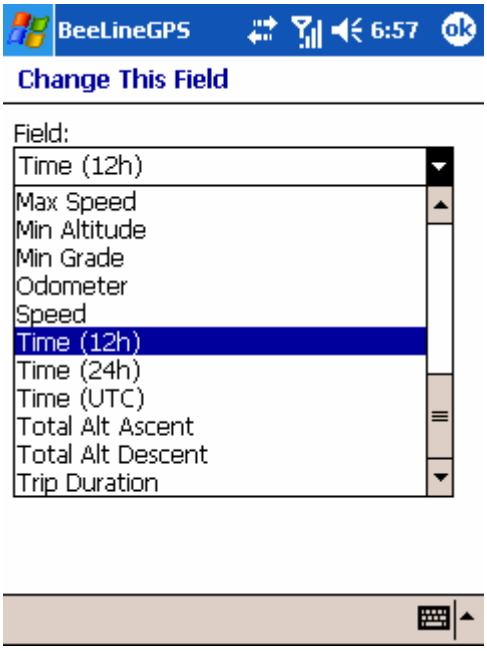
Trip Computer Tap-and-Hold Menu Items



A tap-and-hold action on top of the Trip screen will invoke a menu. The tap-and-hold menu will allow you to set the specific field where the tap-and-hold was activated. You can configure each field, the number of fields displayed or reset the trip data. Below is a description of each menu item.



- Change This Filed – Select this menu item to change the field data where the tap-and-hold was activated. When selected it will show a dialog allowing the user to choose a specific data type to display in the field. See the table below for trip data items.
- Screen Configuration – Choose this menu item to setup the screen configuration. The screen is setup as column/row where the following screen configurations may be selected: 1X1, 1X2, 1X3, 1X4, 2X2, 2X3, 2X4, 2X5, 2X6, 3X4, 3X5, 3X6, 4X3, 4X4 and 4X5.
- Reset Trip Data – Choose this menu item to reset all of the trip data items to zero. Any items such as distance and duration will be reset to zero.

Below is a list of trip data items that each field can be programmed to.

Altitude	Distance to Waypoint	Minimum Gradient
Altitude Difference	ETA	Odometer
Average Grade	ETA 12 Hour	Speed
Aberage Speed	ETE	Time (12 hour)
Average Grade Ascent	Gradient	Time (24 hour)
Average Grade Descent	Heading	Time (UTC)
Battery Status	Heading Symbolic	Total Altitude Ascent
Bearing	Maximum Altitude	Total Altitude Descent
Bearing Symbolic	Maximum Gradient	Trip Duration
Blank	Maximum Speed	
Cross Track Error	Minimum Altitude	

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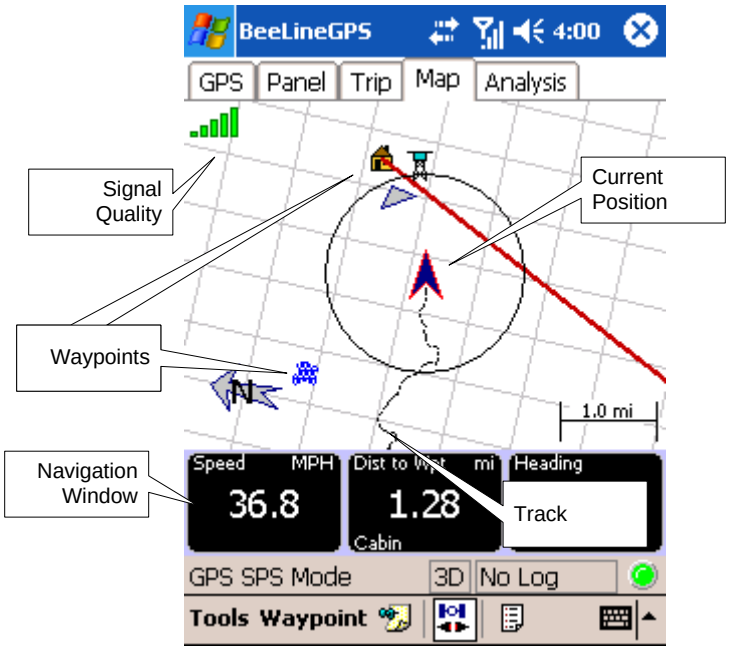
Map

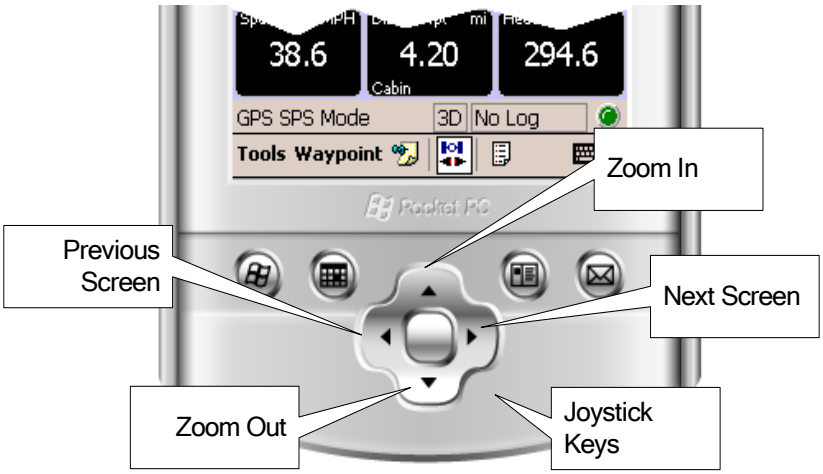
The map screen will display waypoints, tracks, and the current position as received from the GPS receiver. It will also allow waypoints to be selected and manipulated using a variety of functions.

By using the “tap-and-hold” feature of the Windows Mobile device, many functions may be accessed to manipulate waypoints and map features.



Keys

The map screen uses the joystick keys to zoom in and out. Use the Joystick up key to zoom in and the joystick key to zoom in. Use the left and right joystick keys to switch screens.



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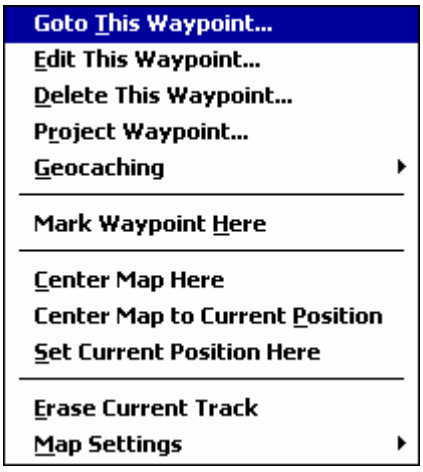
Map Tap-and-Hold Menu Items (map screen)



These menu items are shown when the tap-and-hold was invoked on top of the map window.

Goto This Waypoint

When a tap-and-hold is activated on a waypoint, this menu item will be enabled. If selected, then the selected waypoint will be enabled as the “go to” destination.

Edit This Waypoint

When a tap-and-hold is activated on a specific icon, this menu item will be enabled. Selecting this menu item will show the Waypoint Edit dialog. For more information please see the Waypoint Edit Dialog section.

Delete This Waypoint

When a tap-and-hold is activated on a specific icon, this menu item will be enabled. Selecting this menu item will immediately delete the selected waypoint.

Geocaching

The Geocaching menu section holds sub-menus related to Geocache specific items. When a tap-and-hold is activated on a specific waypoint and the waypoint is a Geocache, the following menu items will be enabled.

- **Found it -** This is a shortcut for forcing the selected a cache waypoint as found. You will also be prompt for field notes if you choose.
- **No Found -** Select this menu item to force a cache to the Not Found state.
- **Show Geocache Info -** Select this menu item to show the Geocache details. The details will be shown using the web browser.

Mark Waypoint Here

This menu item will mark a new waypoint at the point where the tap-and-hold was invoked. It will then show the Edit Waypoint Dialog so that the details of the waypoint may be entered.

Center Map Here

Centers the map to where the tap-and-hold was invoked.

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Center Map to Current Position

Select this menu item to center the map to the current position as reported by the GPS receiver. This item is the same as selecting the “Exit Pan” button on the map.

Set Current Position Here

Select this menu item to set the current position to the point where the tap-and-hold was invoked. This is useful if there is no GPS receiver connected.

Erase Current Track

Erases and clears the current track.

Map Settings

This menu section holds some quick settings for the map as well as the “Map Properties” menu item.

- **North Up -** Select this menu item to enable the North up map mode.
- **Course Up -** Select this menu item to enable the Course up map mode.
- **Map Properties -** Shows the Map Properties dialog.

Map Tap and Hold Menu Items (Navigation Window)

These menu items are shown when the tap-and-hold was invoked on top of the Navigation Window.

- **Change This Field -** Select this menu item to change the individual fields to output a different navigation item.
- **Hide Window -** Hides the Navigation Window. You can enable this window in the Map Properties dialog.
- **Map Properties -** Shows the Map Properties dialog.

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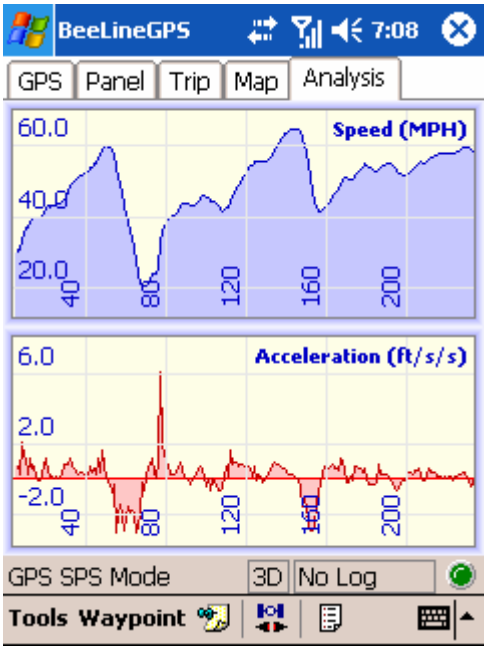
Analysis



The Analysis window can plot up to four different plots simultaneously with a choice of several plot types. This screen is useful for looking at data trends such as altitude profile.

Currently the plot types supported are:

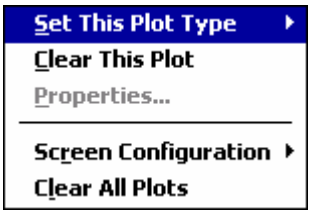
- Acceleration
- Altitude
- Speed
- Track Error
- Vertical Speed

We are always receptive to additional data fields from users. Please send us your suggestions.

Active Keys

The up and down joystick keys will act as a plot zoom in and zoom out.

Analysis Tap-and-Hold Menu Items



A tap-and-hold action on top of the analysis plots will invoke a menu. Some plot types may have additional settings and if they do, then the Properties menu item will be enabled. Please note that to set specific settings for a particular plot, tap-and-hold on top of the corresponding plot. For example, if the Altitude plot is active and a tap-and-hold has been activated on top of the Altitude plot, then the Properties menu item will be enabled.

Set This Plot Type

- Acceleration – This plot will show acceleration in witch the plot will show the change in velocity over time.
- Altitude – Shows the altitude change over distance. If a tap-and-hold is activated on top of the altitude graph, then the Properties menu item is enabled and addition parameters may be set for this plot.
- Speed – Show the speed over time.
- Track Error – Shows the track error distance over time
- Vertical Speed – Shows vertical speed over time.

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Clear This Plot

Select this menu item to erase the plot where the tap-and-hold was activated.

Properties

This menu item may or may not be enabled depending of the plot where the tap-and-hold was activated. If there are further settings for the specific plot, then this menu item will be enabled.

Screen Configuration

Select this menu item to selects different screen configuration modes of 1X1, 1X2, 1X3 and 2X2.

Clear All Plots

Select this menu item to clear and erase all of the plot data for all plot types.

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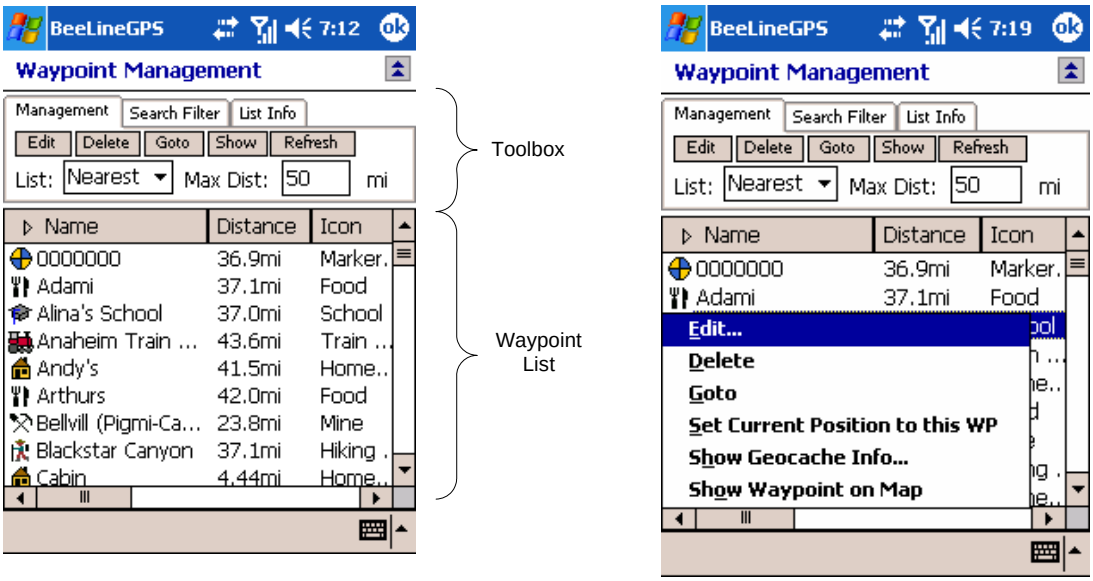
Waypoint Management

The Waypoint Management Dialog helps in managing waypoints. This includes editing, deleting, sorting and searching. Actions on multiple waypoints may be applied such as deleting and editing.

The waypoint manager is divided into two sections, the waypoint list and the toolbox.

You can expand the toolbox by using toolbox expansion button located in the upper right corner ( ). This button will also allow you to close the toolbox so the waypoint list can display more information.



Some of the toolbox management functions can be accessed by a tap-and-hold on a specific waypoint or a range of waypoints. The toolbox will also allow you to apply a search filter when displaying the waypoint list. Note that the search filter is preceded by the “List” rule. I.E. if the list rule is set to “Nearest” and the Max Dist is set to 10 miles, then the search filter is applied to all waypoints within a 10 mile radius. To apply the search rule on all waypoints, the “List” rule must be set to “All”.

To apply the Search Filter, check the “Enable Filter” checkbox. The “Enable Filter” checkbox will automatically check if text is typed in the “Search Text” edit box. After entering the search text, tap on the “Refresh” button to display the results. Use the “Match Case” checkbox to match the exact case of the search text. Below is an example of a search for “Anaheim”.

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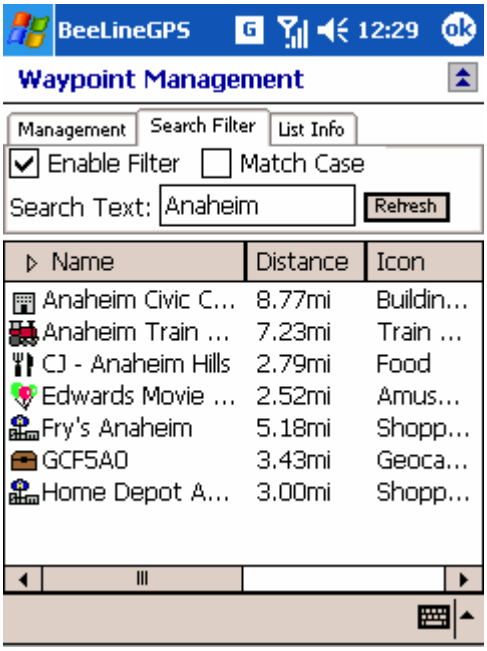

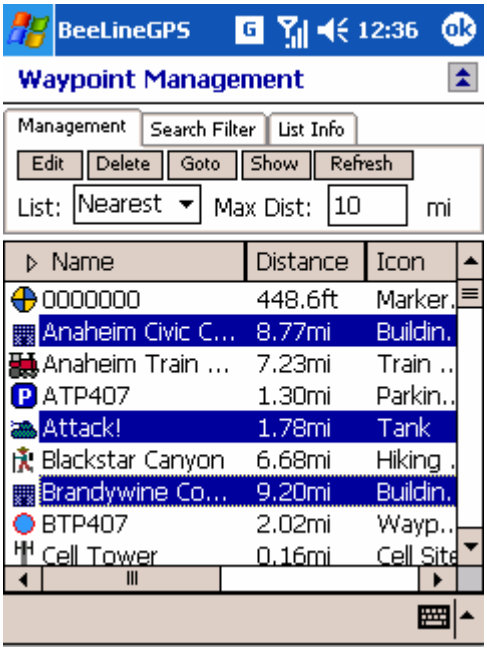

Edit Waypoint

To edit a waypoint, select that waypoint and tap on the edit button. This will show the Waypoint Edit Dialog.

To edit multiple waypoints, select the first waypoint, enable the keyboard, select the *Ctl key* and select the individual waypoints to edit.

When editing multiple waypoints, only specific items may be changed. These items are Icon, Geocache State, and Active Waypoint parameters. The changes will be applied to all of the waypoints that were selected.

Please note that multiple edits and single edits invoke different waypoint edit dialogs. See Edit Multiple Waypoints Dialog for a detailed description.

Delete Waypoint

To delete a waypoint, select the waypoint and tap the delete button. As with waypoint edit, you may delete multiple waypoints. To delete multiple waypoints, select the first waypoint, enable the keyboard, select the Ctl key and select the individual waypoints to delete.

Range Selection

To select a range of waypoints, select the first waypoint, enable the keyboard, select the shift key and then select the last waypoint.

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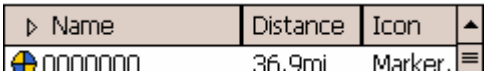
Sorting



Sorting may be applied to individual columns. To sort by an individual column, select (tap) the column header and the list will sort using that column as the sort key. A small triangle will appear next to the column to indicate the current sort column.

Column Width

Clicking in the column dividers, the width of each column may be adjusted. The width will be retained the next time the software is run.

Goto/Show

The Goto and Show (show waypoint on map) buttons will immediately close the Waypoint Management Dialog and perform the function. Only one waypoint may be selected to use the Goto and Show buttons.

List Nearest/List All

This drop down list will control how the waypoints are listed. When *List Nearest* is select, then only waypoints within the *Max Dist* (Maximum Distance) threshold are listed. This is the distance from the current position. If List All is selected, then all of the waypoints in the database are listed and the *Max Dist* is ignored.

Whenever the *List* or *Max Dist* is changed, you must tap the *Refresh* button to apply the change and refresh the waypoint list.

Please note that large number of waypoints listed may take a few seconds to display.

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Waypoint Edit Dialog

The Waypoint Edit Dialog allows items within the waypoint record to be changed. The dialog is separated into specific page tabs to allow data entry easily. Each page tab is described below.

Settings

The Settings tab shows the basic items associated with the waypoint such as position, name, and icon.

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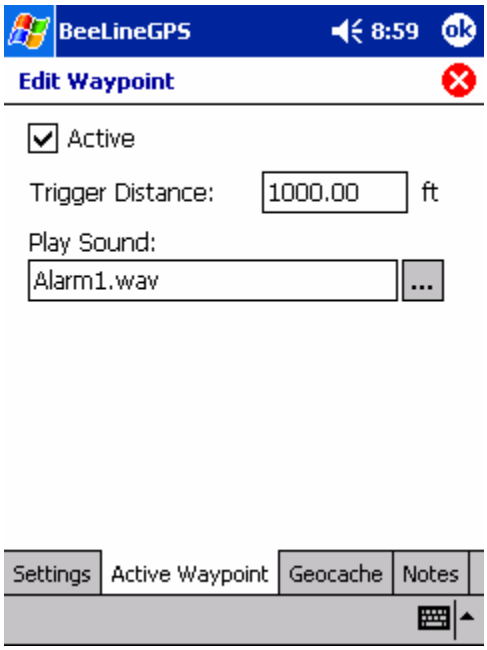
Active Waypoint

Active Waypoint configures the waypoint to act as a proximity waypoint where a sound file may be played along with an active message box. This is useful for warning messages and self guided tours.



To enable the waypoint to act as an active waypoint, check *Active*. The trigger distance is the distance radius that the waypoint will trigger if within that distance. Select the "**. . .**" button to access a sound file or type in the directory path and file name.

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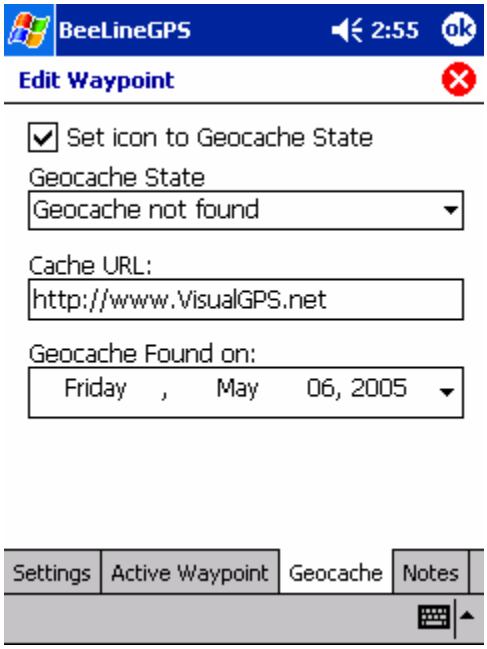
Geocache State

Geocaching is fast becoming a popular GPS activity. For more information on Geocaching, please visit, www.geocaching.com. BeeLineGPS has added features to support Geocaching in several ways. The *Geocache* tab helps with manage the waypoint as a Geocache.



To enable the Geocache feature, check the *Set icon to Geocache State*. This will set the icon shown for the waypoint to one of ten Geocaching icons depending on the Geocache State. Some of the states may show different icons depending on the state and the time that the cache was hidden. When the cache state is set to *Not Found*, it will display one of three icons depending on the time the cache was placed. If the cache was placed within 30 days of the time on the PDA, the waypoint will show the *New Cache* ( ) icon. If the cache was placed before the current date on the PDA, the waypoint will displayed as a *Future Cache* ( ). If the cache is older than 30 day, then the *Not Found* ( ) icon will be displayed.

Archived or missing	This icon shows that this is an archived or missing cache.
Attempted	Shows that an attempt was made to find this cache, but has not yet been found.
Bonus	This state is handy to identify a bonus cache.
Earthcache	Indicates that a unique geological features exist here.
First to Find	Shows that this cache was a First to Find! (FTF)
Found	This icon represents a found cache, but not yet recorded on the Geocache web site.

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Found and recorded	This icon shows that this cache has been found and recorded on to the Geocache web site.
Future Cache	This is a future cache -- The date on the cache shows a date this is in the future from the current date on the Pocket PC.
Letterbox Cache	Shows that this cache is a letterbox cache where only clues give you the location of the cache.
Milestone	Shows that this cache was a personal milestone.
Multi Cache	Shows that this cache is part of a multi-cache.
My Cache	This icon that this is a cache that you have hidden.
Mystery Cache	Mystery or puzzle cache
New Cache	If the cache has been placed within 30 days of the current date, then the "Not Found" icon will show as a new cache icon.
Not Found	This is the standard icon for caches that have not yet been found.
To Do	This icon shows that you plan to find this cache and is still on your to do list.
Unknown Cache	Same as Mystery Cache
Virtual Cache	Indicates a cache made of a location. Point of Interest.

Notes

The Notes tab simply allows notes or a description for the waypoint. When using the active waypoint feature, the notes are displayed in the message dialog in certain modes.

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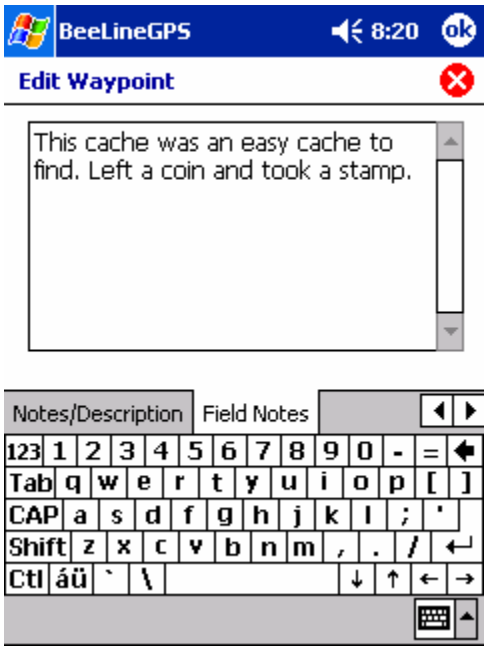
Field Notes



Field notes are for general purpose notes about the waypoint. Feel free to write anything here.

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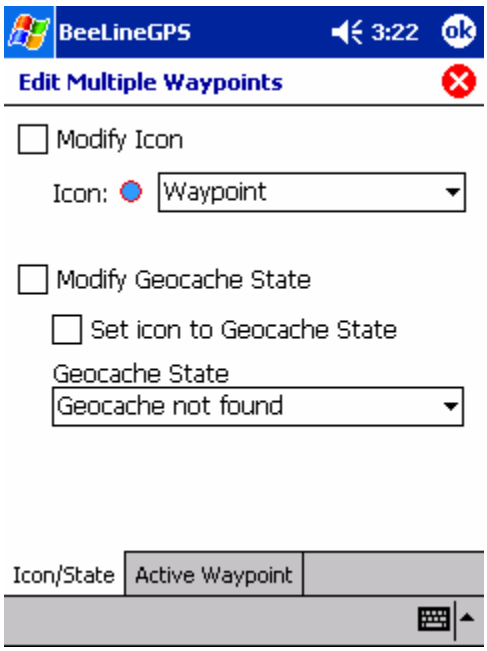
Edit Multiple Waypoints Dialog

BeeLineGPS has the capability to edit multiple waypoints. When editing multiple waypoints, a special waypoint edit dialog will show. This dialog will only allow specific items to be changed. Each item or items that can be changed has a modify check box above it. To apply the change to the item, check the modify check box.

NOTE: To edit multiple waypoints, see the Range Selection in the Waypoint Management dialog section of this manual.

Icon/State

The Icon/State tab allows you to change the Geocache State or the icon for the waypoint. Please note that if the *Set icon to Geocache State* is set, the icon shown will be automatic depending on the Geocache state.



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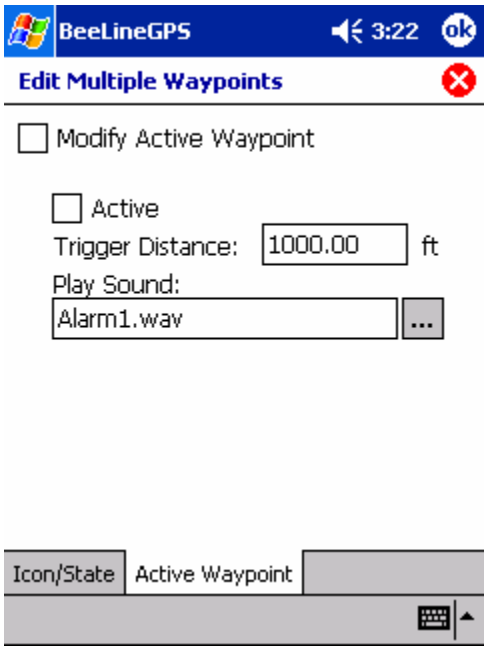
Active Waypoint

The Active Waypoint tab allows modification to the Active Waypoint parameters. Check the Modify Active Waypoint check box and setup the individual parameters to modify these parameters.



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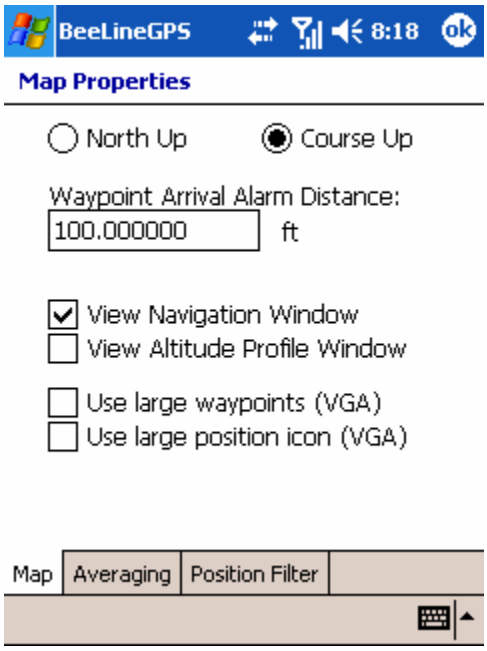
Map Properties Dialog

Use this dialog to change the map orientation and enable/disable specific map details.



Map Tab

North Up
North Up will orient the map such that North is always up.

Course Up
Course Up will orient the map such that the direction of travel is at the top of the map.

Waypoint Arrival Alarm Distance
Use this parameter to adjust when the waypoint arrival is triggered. This applies only to a GoTo waypoint.

View Navigation Window
Enables the Navigation Window on the map. The Navigation Window can show navigation status such as speed, direction and distance to a GoTo waypoint.

View Altitude Profile Window
The Altitude Profile Window will show the altitude graphically as time progresses.

Use large waypoints on map (VGA)
This option will double the size of the waypoint icon on the map screen and is recommended for devices that have VGA screen resolution support (480X640).

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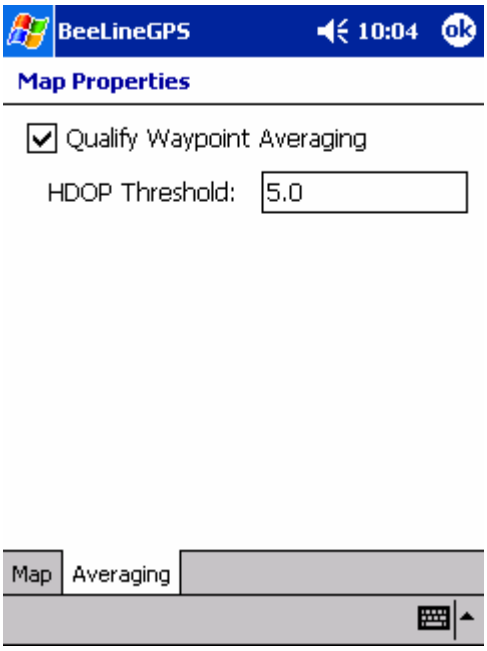
Use large position icon (VGA)
This option will double the size of the position marker and is recommended for devices that have VGA screen resolution support (480X640).

Averaging Tab



- Qualify Waypoint Averaging
  Check this to qualify the position against the DOP threshold before using it in the average.
- HDOP Threshold
  Sets the HDOP threshold. BeeLineGPS will use the position if it is less than or equal to this DOP value. To use positions calculated with good geometry, use a numbers between 1.0 and 5.0. To use positions with relaxed geometry, use numbers in the 10s and 20s.

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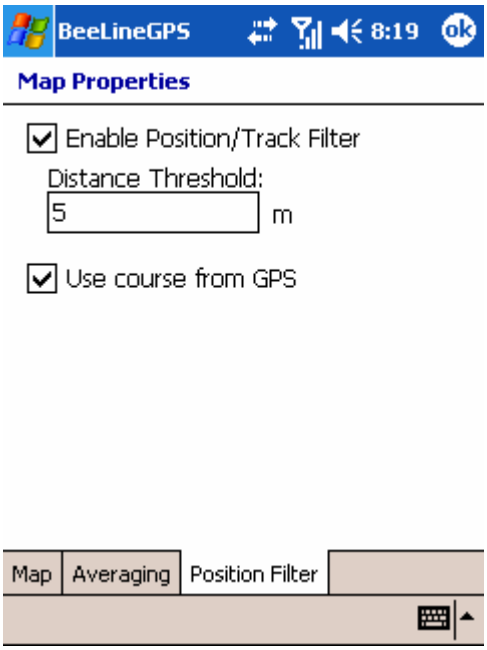

Enable Position Filter

Under normal operation, this item should be checked. When in a stationary position, the GPS position will wander and the position is changing very slightly.

When the filter is enabled, it will take approximately a “Distance Threshold” position change before a new track point is recorded and certain trip computer items are updated. When the filter is disabled, every new position is recorded in the track log as well as used in the trip computer. The map screen will always show the current position that the GPS receiver sends.

Use Course from GPS

When checked, BeeLineGPS will use the course from the GPS receiver. The course is extracted from the GPRMC NMEA command. When not moving some GPS receivers will report an erratic course where the course will show a bouncing around affect. Some GPS receivers have filters to prevent a course change when not moving.

When not checked, BeeLineGPS will calculate the course internally based on the “Distance Threshold”. BeeLineGPS will take the previous position, the new position (after the GPS has moved more than the threshold) and calculate a new course. When not moving, the course will not change unless the GPS moves more than the “Distance Threshold”. The disadvantage of this method is when the user is trying to move short distances to locate a waypoint or Geocache. The user would have to move at lease the “Distance Threshold” before a new course is calculated.

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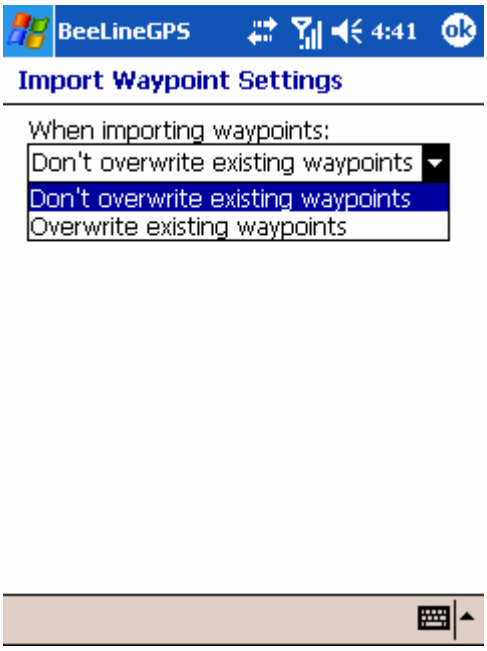
Import Waypoint Settings Dialog

This dialog will allow you to choose the action to be taken when a waypoint with the same name exists in the database as being imported. There are two choices.



- **Don’t overwrite existing waypoints** – Choose this item if you do not want existing waypoints in the data to be overwritten by newly imported waypoints.
- **Overwrite existing waypointe** – Choose this item if you would like to overwrite existing waypoints by newly imported waypoints.

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Appendix A – Waypoint icons

ID	Icon	Description
0		Default (Waypoint)
1		Home/Residence
2		National Park
3		Bar/Pub
4		Airport
5		Parking Area
6		Picnic Area
7		Forest
8		Hiking Trail
9		Fishing Area
10		Drinking Water
11		Camping Area
12		Danger Area
13		4 wheel Drive Road
14		Gas Station
15		Car
16		Food
17		Marina
18		Mine
19		Green Flag
20		Red Flag
21		Golf Course
22		Scenic View
23		Do Not
24		Geocache – Not Found
25		Geocache – Found
26		Geocache – Attempted
27		Medical Center
28		Auto Service
29		Telephone Service
30		Summit
31		Restroom
32		Building Large
33		Building Small
34		Amusement Park
35		Shopping Center
36		Park
37		Barber Shop
38		Target
39		Tank
40		Explosion
41		Marker 1
42		Marker 2
43		Marker 3
44		Marker 4
45		Marker 5
46		Marker 6
47		Marker 7
48		Marker 8
49		Marker 9
50		Marker 10
51		Lake
52		Ocean
53		Camera – Speed
54		Camera – Red Light
55		Camera – Roadside
56		Bridge

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57		Road Block
58		Museum
59		Antenna
60		Hotel/Motel
61		Club
62		Trailer Parking
63		Post Office
64		Ranger Station
65		Skiing Area
66		Dot
67		Earthquake Fault
68		Water Stream/Creek
69		Tsunami and Flood Damage
70		Military
71		Ghost Town
72		Bird Watching
73		Boat Ramp
74		Telephone Pole
75		Cell Site
76		Radio Repeater
77		Data Collection Station
78		HAM Radio Shack
79		Parachute Area
80		Wireless Hotspot
81		Rest Stop
82		Weather Station
83		Geocache-Found and Logged
84		Geocache – ToDo
85		Geocache – Archived
86		Geocache – New and Not Found
87		Geocache – Future/Event Cache
88		Geocache – My Cache
89		Helipad
90		Building – Government
91		Light Pole
92		Bank
93		Rocks
94		Geocache – Multi
95		Radiator Water
96		Point of Interest
97		Direction Left
98		Direction Right
99		Direction Straight
100		Benchmark
101		Rock Climbing
102		Lighthouse
103		Zoo
104		Border Crossing
105		Geocache – First to Find
106		Trash
107		Train Station
108		Bus Stop/Station
109		Cemetery
110		Stadium
111		Information
112		Geocache – Milestone
113		Geocache – Unknown
114		Geocache – Mystery

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115		Geocache – Letterbox
116		Geocache – Earthcache
117		Geocache – Mystery
118		Fire lookout Tower
119		Police
120		School
121		Fire Damage
122		Start
123		Geocache Bonus
124		Arial Tramway
125		Christian Church
126		Jewish Temple
127		Mosque
128		Buddhist Temple
129		Projected Waypoint
130		Beach
131		Microphone
132		Speaker
133		Ship Wreck
134		Castel
135		Tower
136		Roundabout
137		Ruins
138		Traffic Light
139		City (small)
140		City (medium)
141		City (large)
142		Stables

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