



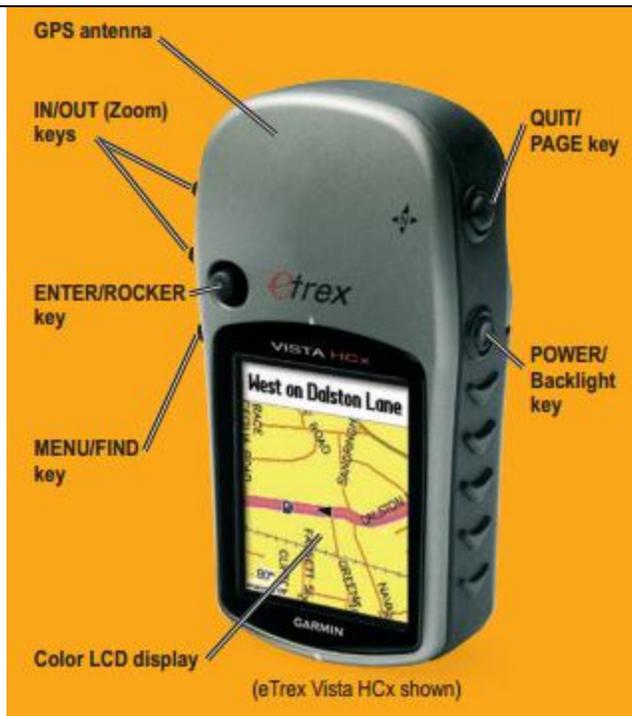
## GPS Data Collection – Quick Start Guide

This tutorial will introduce you to the following:

- Using a GPS Receiver to Record Waypoints
- Uploading GPS Data into a GIS

### Part 1. Record GPS Waypoints

Press the power button on the Garmin. The first function the receiver performs is to identify satellites in the area – a notice, “Acquiring Satellites,” will be shown. This may take a few minutes, depending on obstructions (buildings) and the weather (clouds). Once the Garmin has acquired enough satellites to identify your location, you can create a waypoint. Navigate to the main menu and use the small joystick on the top left of the screen to navigate to “Mark.” Here you can see the number, date, location, and elevation that will be recorded. You can use the joystick to navigate along these fields, and you can edit the name of the mark if you desire. Navigate to OK on the bottom right of the screen and click it by pushing in the joystick. Images from the quick start guide are shown below.



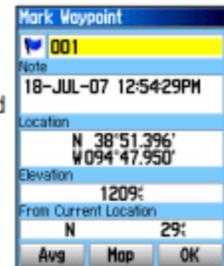
### Marking a Waypoint

To mark your current location:

1. Press and hold **ENTER**.
2. To accept the waypoint with the default information, select **OK**, and press **ENTER**.

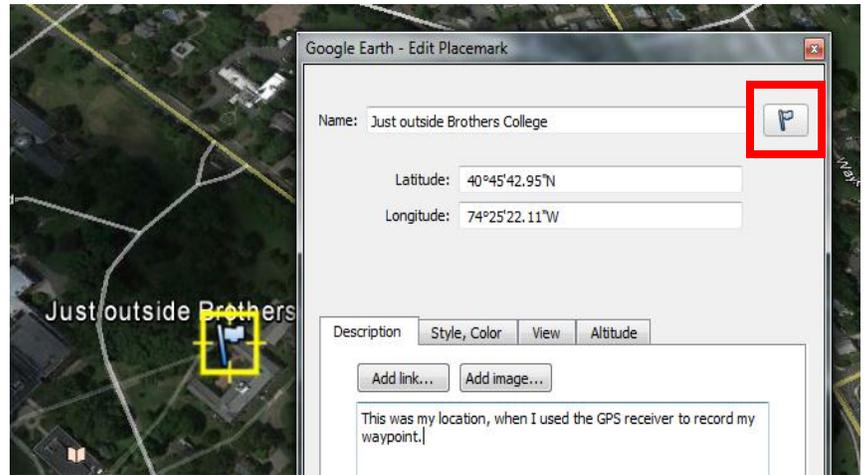
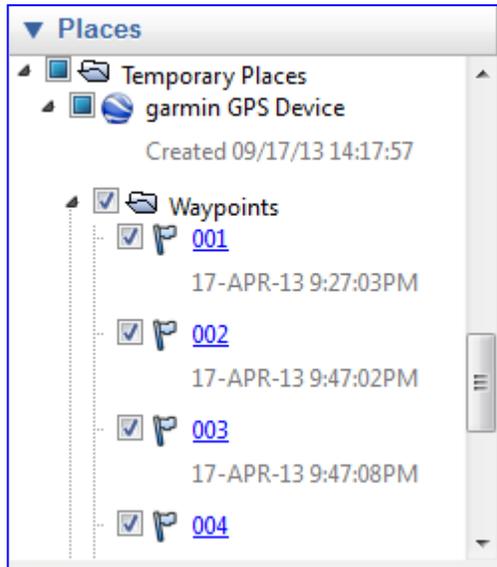
OR

To change any information on the Mark Waypoint page, select the appropriate field, and press **ENTER** to open the on-screen keypad. After entering and confirming your changes, select **OK**, and press **ENTER**.



### Part 2. Uploading GPS Data

When you purchase a GPS receiver, you will often also get software that you can install on your computer. This software typically includes maps, as well as a program that will retrieve and store waypoints from your GPS. To use Garmin data, for example, with ArcGIS, you need to install the software on your computer. Then, you can save your points, and data in a format that will open in ArcGIS (e.g. .csv files). Conveniently, and what we will illustrate for this tutorial, you can upload data directly from a Garmin to Google Earth. Turn the Garmin on, and using a USB cable, plug your GPS into your computer. Open Google Earth. In Google Earth, select Tools > GPS. Make sure that Garmin and Waypoints are checked. Click Import. Your waypoints should now be found on Google Earth, and you can select specific waypoints by looking under Places > Temporary Places > garmin GPS device on the left-hand side of your screen (see image below).



### Part 3. Customizing a Map in Google Earth

Zoom into the waypoints that you recorded, by double clicking on the waypoint in the places menu. To modify the placemark, right click on the waypoint in the places menu and select properties. Then, you may edit the name, description, or placemark image settings. To save the map image from Google Earth, click File > Save > Save as Image. Using Google Earth, you also have options to save your waypoints as .kml or .kmz files. These can be imported and edited using other GIS software.

