

InitEartha – Freeware Earthmate GPS Initialization Utility.

System Requirements:

InitEartha requires a PC running:

Windows 9x, Windows NT-4.0, Windows ME or Windows 2000.

Serial communications ports supported:

Ports 1 through 4 are supported.

Sorry, InitEartha will not run in DOS mode nor will it run on Mac's or UNIX/LINUX systems.

License Agreement:

InitEartha is offered as freeware. No charge may be made for this package without express written permission.

If you distribute InitEartha to others it must be at no charge. You must distribute it as the original zipped file. Since InitEartha was written in Visual Basic some firewall programs, (such as ZoneAlarm), automatically assume that it may be a virus without really checking. InitEartha is not a virus, this may be confirmed by checking it with Norton AntiVirus or other such program.

If you do not agree with these terms please delete this program from your computer.

Overview:

The first time any GPS is powered up in a new location it must search for satellites and download a set of data from the Satellites called an almanac. If the GPS has moved a long distance from the last place it was powered up it must use its cold start routines which can sometimes take several hours.

The Earthmate GPS is normally initialized by the DeLorme Street Atlas program using the coordinates you entered on the initialization screen. The problem here is that if you don't have a copy of Street Atlas then you must just wait until the GPS figures out where it is.

To solve this problem we are offering the InitEartha utility as freeware.

InitEartha was written by Tooraj Enayati who has been kind enough to allow us to distribute InitEartha as Freeware.

As long as the Earthmate GPS has fresh batteries and remains in the same general location you only need to run InitEartha one time. If, however, you find that your Earthmate is taking a very long time to acquire satellites you may want to resort to InitEartha to help it out.

Installation:

Unzip the InitEartha zip file into a temporary directory and then double click on InitEartha.exe. You will be prompted for a scratch directory for the install program to work in. After all the files are extracted into the scratch directory click on the install button and InitEartha will be installed on your system. After you have installed InitEartha you may delete the installation program.

A word of caution, do not use the temporary directory as the destination for the program. If you do so the install will fail and you will have to restart it.

Running InitEartha:

Your Earthmate must have a clear unobstructed view of the sky and fresh batteries before running InitEartha.

1) Connect your Earthmate directly to the serial COM Port on your computer. **The GST-1 must not be connected at this time.**

2) Double click on the InitEartha global icon. You will be shown an "about screen" [Figure 1](#), Click on the continue button and you will see a data entry screen, ([Figure 2](#)), for you to input your latitude, longitude, GMT time offset and COM port number.

Latitude and Longitude are entered as degrees and decimal degrees, for example:

A Latitude of 33 degrees 15 Minutes North would be 33.25 degrees. North (15 Minutes divided by 60). To assist in calculating decimal degrees from D M S format we have included an MS Excel calculator, (LL_Convert.xls).

Be sure to click the appropriate North/South for Latitude and East/West for Longitude.

Enter the time offset as your time offset from UTC. For example:

Los Angeles is -8 Hours off of UTC, (-7 Hours during Daylight Savings Time)

Next Click on the continue button. You will see a window as shown in [Figure 3](#), followed by a window similar to [Figure 4](#). If the Figure 4 window does not appear make sure that you selected the proper data entry parameters including the UTC time offset, (negative if you are west of England), and Port Number as shown in [Figure 3](#).

Finally you should see a Window similar to [Figure 5](#), showing the status as **acceptable** and the number of Satellites that are being received. A minimum of 3 satellites are required for 2D navigation and for 3 D Navigation, (Altitude), you need a minimum of 4 satellites

After your Earthmate has initialized, disconnect it from your Computer and connect it to the GST-1.

Known Problems or features:

1) If you happen to live at 0 degrees Latitude or 0 degrees Longitude you will receive an error saying that the location was in error. Simply use 1 degree instead of 0 degrees and everything will work fine. This will not make any real difference in the Earthmate's initialization.

2) The Hint message for the UTC offset time has an incorrect UTC offset value of -7 hours for New York. This is only a Hint message error and should be ignored. It will be corrected in a later release.

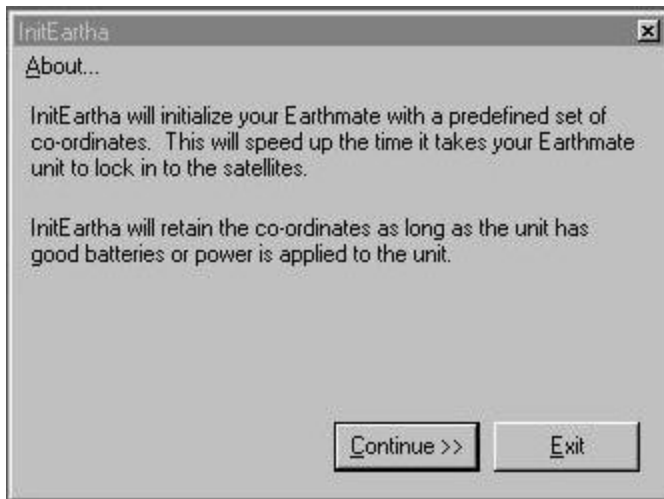


Figure 1 - InitEartha Opening Screen

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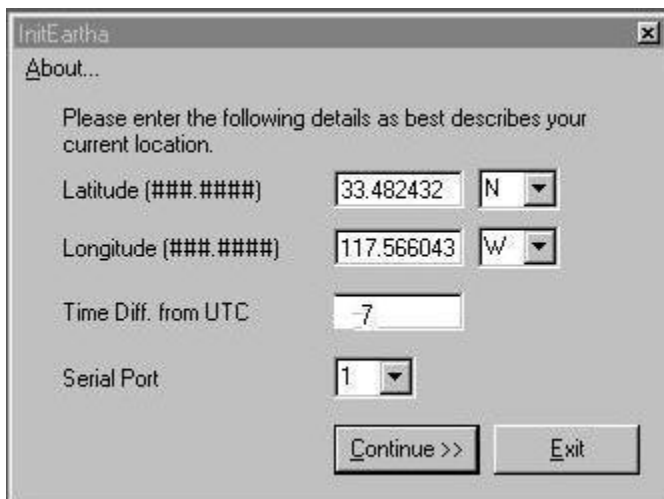
A screenshot of the 'InitEartha' application window showing the data entry screen. The window has a title bar with 'InitEartha' and a close button. Below the title bar is a menu bar with 'A'bout... The main text area contains the instruction: 'Please enter the following details as best describes your current location.' Below this are four input fields: 'Latitude (###.####)' with the value '33.482432' and a dropdown menu set to 'N'; 'Longitude (###.####)' with the value '117.566043' and a dropdown menu set to 'W'; 'Time Diff. from UTC' with the value '-7'; and 'Serial Port' with a dropdown menu set to '1'. At the bottom right, there are two buttons: 'Continue >>' and 'Exit'.

Figure 2 - InitEartha Data Entry Screen

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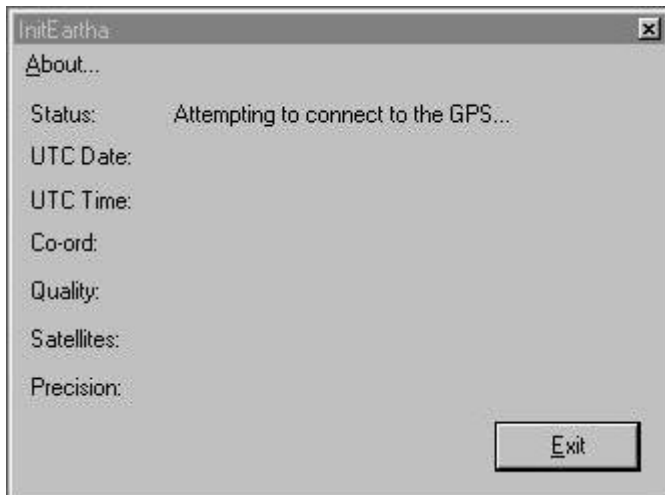


Figure 3 – Connecting with GPS Screen

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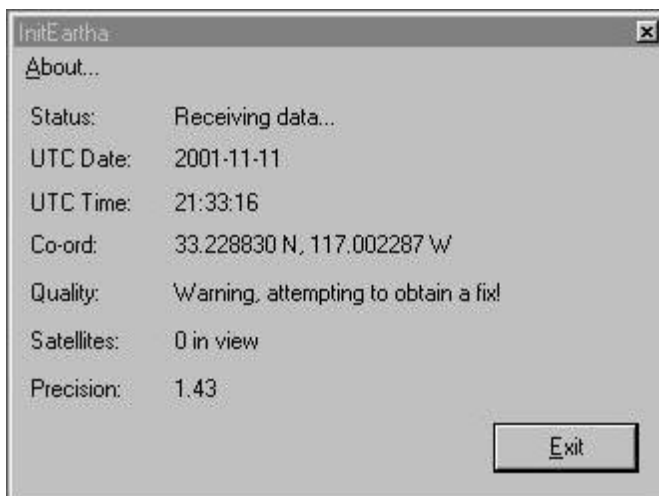


Figure 4 – Receiving GPS Data Screen

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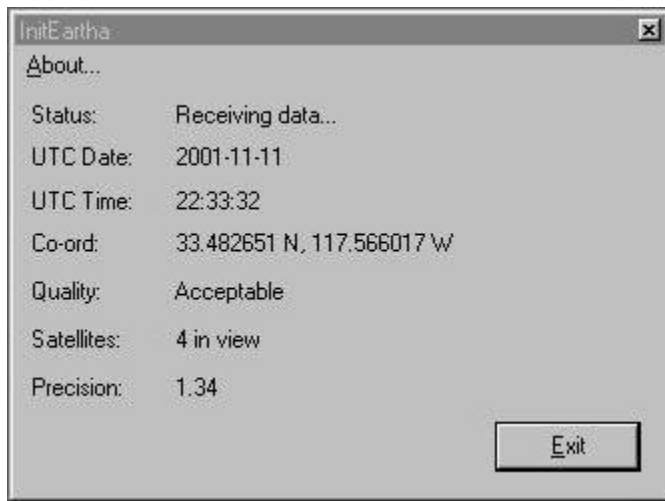


Figure 5 – Initialization Complete Screen

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