

Ashtech Z-Xtreme

Receiver Data Downloading Procedures

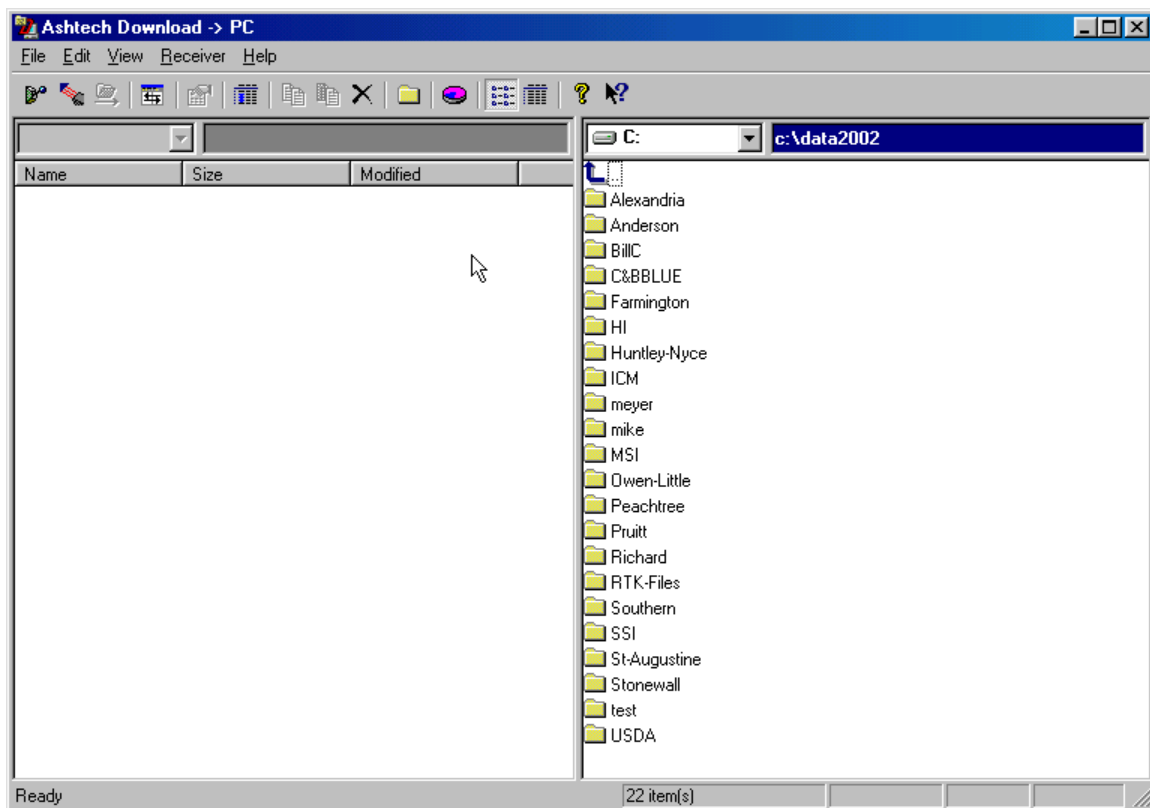
The Z-Xtreme GPS receiver's data files can be downloaded with two different procedures. The data files can be downloaded through any of the receivers three Serial I/O Ports, or the data files can be downloaded directly from the removable PCMCIA card. Data transfer from the PCMCIA card requires removal of the PCMCIA card from the GPS receiver and insertion of the PCMCIA card in Laptop PC's - Type II Card slot, or insertion of the PCMCIA card into a PC Card reader for desk top PC's.

Both of these methods require the usage of the **Ashtech Download** program. Data files are stored in an Ashtech proprietary compression format on the PCMCIA card. The Ashtech Download program will un-compress the data files upon completion the downloading procedure. Using Windows Explorer to copy the data files from the PCMCIA card over to the Computer ***WILL NOT*** un-compress the receiver's data files.

This document outlines the GPS Receiver Data Downloading procedures.

The **Ashtech Download** program is accessed through the **Ashtech Solutions** software.

From the PC's  menu, select **Start | Programs | Ashtech Solutions | Download...**




Screen Capture of the Ashtech Download Program

The **Ashtech Download** software's window panes are defined as follows:

The "Left-Side" window pane = GPS receivers data files or the PCMCIA cards data files.

The "Right-Side" window pane = the Computer's current destination directory path.


Before the actual receiver data download procedure, create and specify the destination Directory on the computer for the GPS data files.


In the "**Right-Hand**" window pane, use the drop down  menu to select the desired Drive letter on the Computer.

Create a new Directory under **C:** called "**Data2002**" using the  New Directory (F7) icon...

High-light and double-click on the **C:\Data2002** Directory to select it.


The resulting Directory is **C:\Data2002...**

High-light and Create a new Folder under **C:\Data2002**, called "**Samoa**" using the  New Directory (F7) icon...

Next, under the **C:\Data2002** Directory, select the  Samoa Folder on the Computer.

The resulting Directory is **C:\Data2002\Samoa...**

It may be useful to further create a Julian Day structure format for the GPS Project. This approach helps to organize GPS data files for multiple day GPS Projects. Create a new Directory under **C:\Data2002\Samoa**, called "**Day210**".

High-light and Create a new Folder under the **C:\Data2002\Somoa**, called "**Day210**" using the  New Directory (F7) icon...

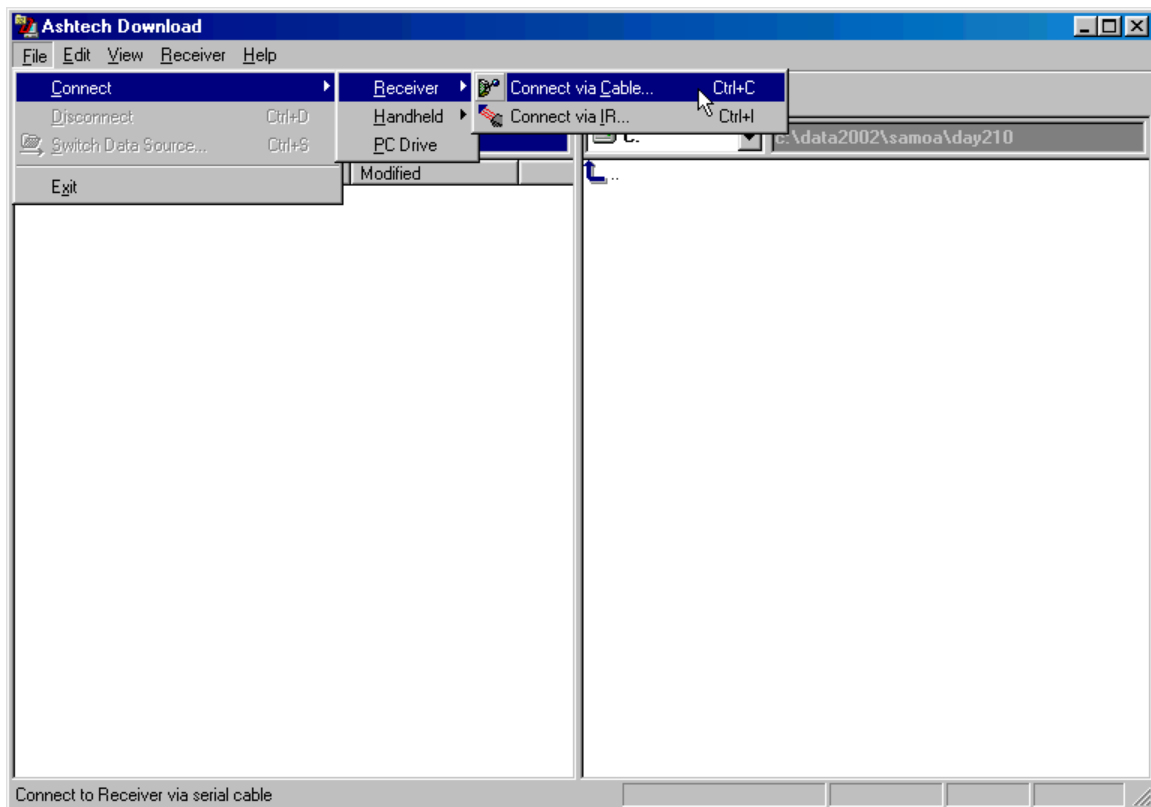
The resulting destination Directory = **C:\Data2002\Samoa\Day210...**

Once the destination Drive Letter and Directory / Folder selection has been made, you are ready to download the GPS data files from the receiver. Establish a connection to the GPS receiver, or PC Card as follows...

This first procedure demonstrates the Z-Xtreme data download procedures using the RS-232 PC Download Cable, (P/N - 700461), Serial I/O Port method.

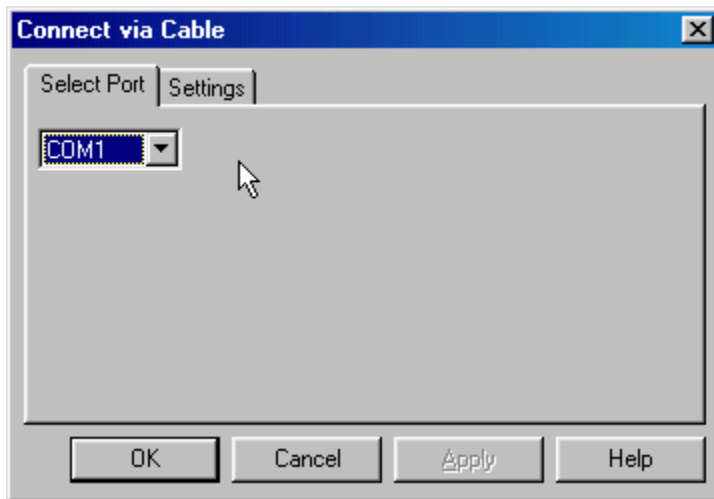
Connect the Fischer connector of the PC Download cable to the Serial I/O Port on the back panel of the Z-Xtreme receiver and the DB-9 connector of the PC Download cable to COM Port on the Computer. Any one of the three available Serial I/O Ports on the back panel of the Z-Xtreme receiver can be used for the data download.

Turn on the GPS receiver **POWER...**



From the **Ashtech Download** -> **PC** menu...

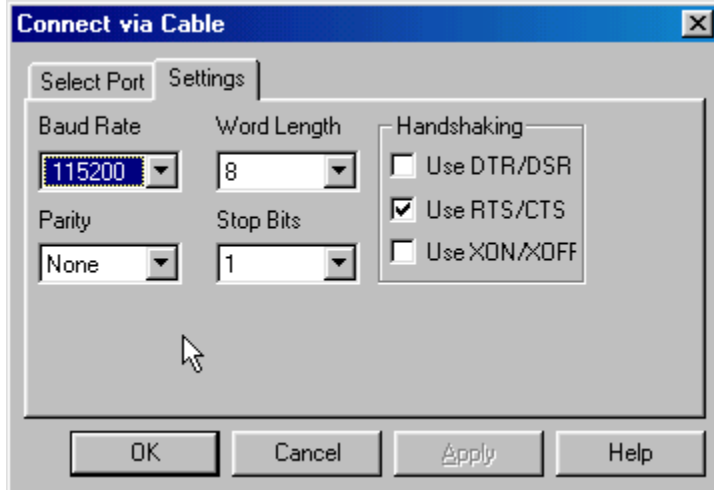
Select **File** | **Connect** | **Receiver** | **Connect via Cable...** **Ctrl+C**



Select the desired **Com Port** on the Laptop, or Desktop Computer...

Next, click on the **Settings** tab to select the desired **Baud Rate...**
Select 115200 Baud Rate.

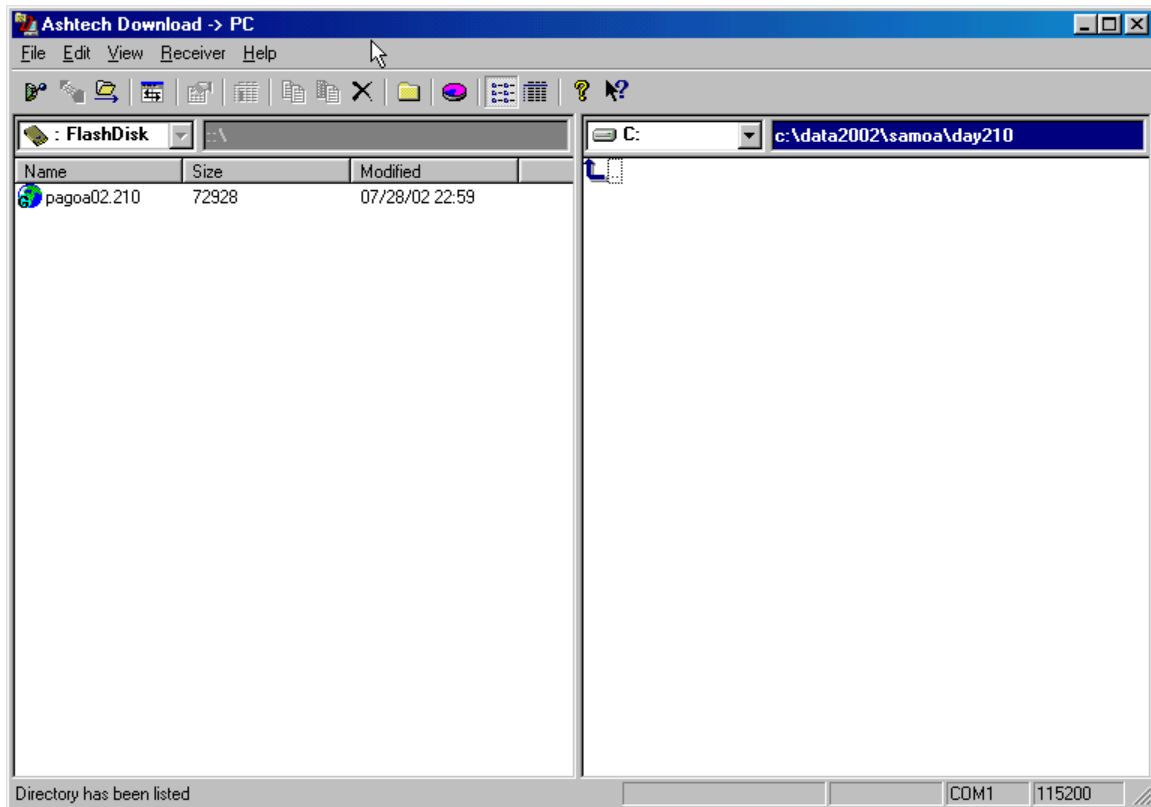
Use the default settings Parity = None, Word Length = 8, Stop Bits = 1.
The Download Program will auto-select the Handshaking parameters.





Once the desired **Com Port** and **Baud Rate** settings have been selected,

Click on  button...

Screen Capture of the GPS Receiver / Download connection...



Once the connection between the Ashtech Download program and the GPS Receiver has been made, observe the compressed GPS data file  pagoa02.210 stored on the GPS Receiver's PCMCIA PC data card... (Left-Side window pane).

In the Ashtech Download -> PC program's "Left-Side" window pane, high-light the  pagoa02.210 data file....

There are three methods available to copy the GPS data file over to the PC...


Method 1:

The Windows Drag & Drop copy option, *high-light the desired file*, single Left-Mouse click & hold, drag the file from the "Left Sided" window pane over the "Right Sided" window pane, and drop.

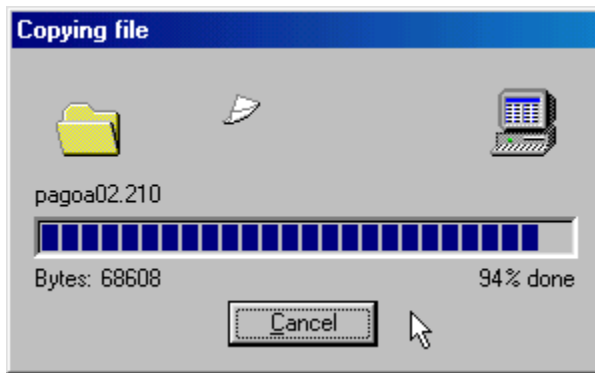
Method 2:


The pull-down menu option **E**dit | **C**opy to F5...

Method 3:

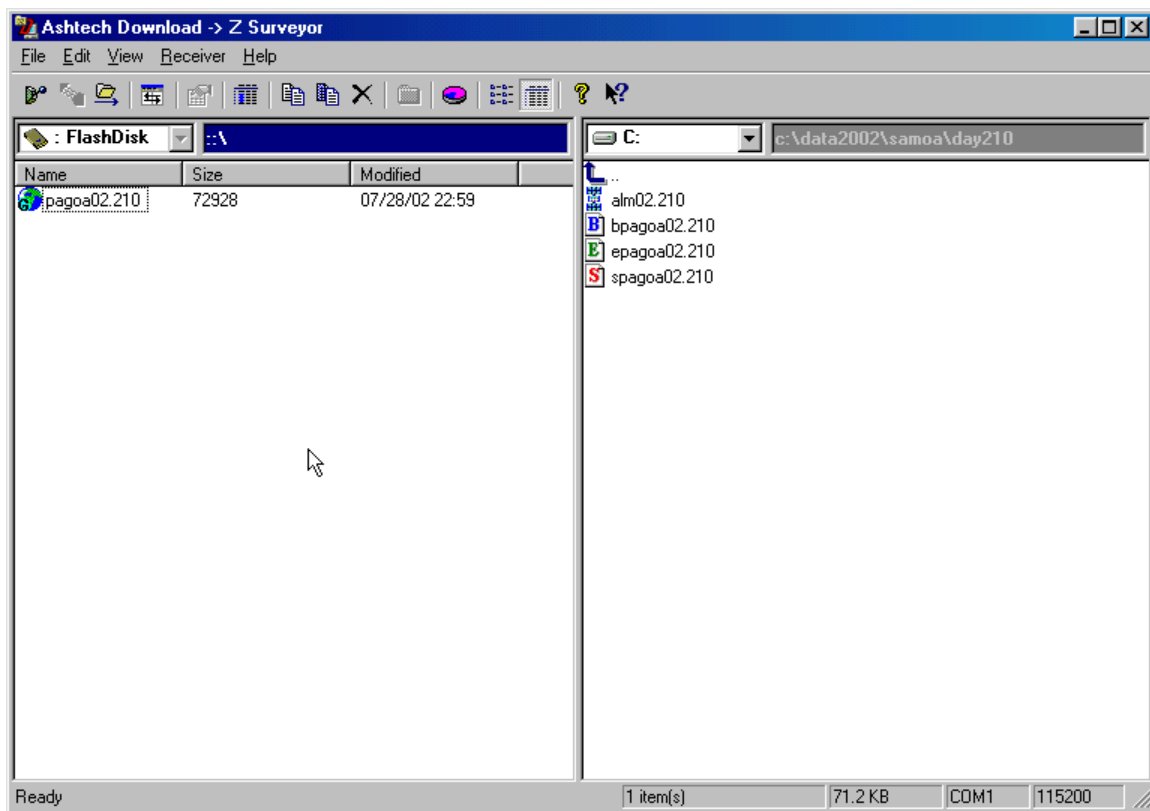
The **Copy Icon** option, click on the  Copy to icon...

Screen Capture of Copy File dialog...



In this example, the **Copy Icon** option, click on the  Copy to icon... method was used.

After the GPS Data file was downloaded, observe the following display:



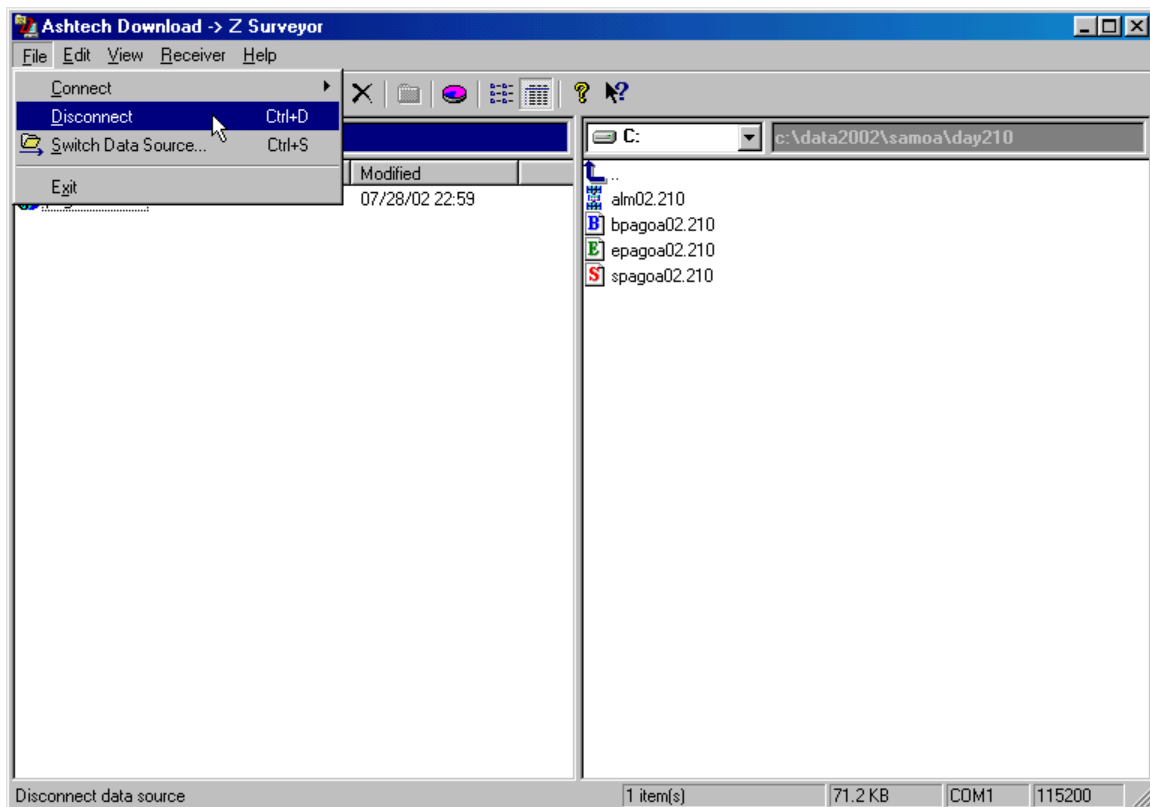
Screen Capture of successful GPS file Data Download...

Note the  file has been Un-compressed into the following files:

 alm02.210
 bpagoa02.210
 epagoa02.210
 spagoa02.210

The resulting Ashtech-Format B, E, S-files are used by the GPS Post-Processing Software to perform the data reductions.

If additional GPS receivers need to be down loaded, select the following option...



File | Switch Data Source...

Power OFF the first GPS Receiver, Disconnect the RS-232 PC Download cable.
Connect the RS-232 PC Download cable to the next GPS Receiver, Power ON the second GPS Receiver – Repeat the GPS Receiver Download procedures as needed.

If you are finished Downloading GPS receivers, select:

File | Exit...

This second procedure demonstrates the Z-Xtreme data download procedures using the PCMCIA PC data card method.

Power OFF the Z-Xtreme GPS receiver, open the PC Card / Battery Compartment door.

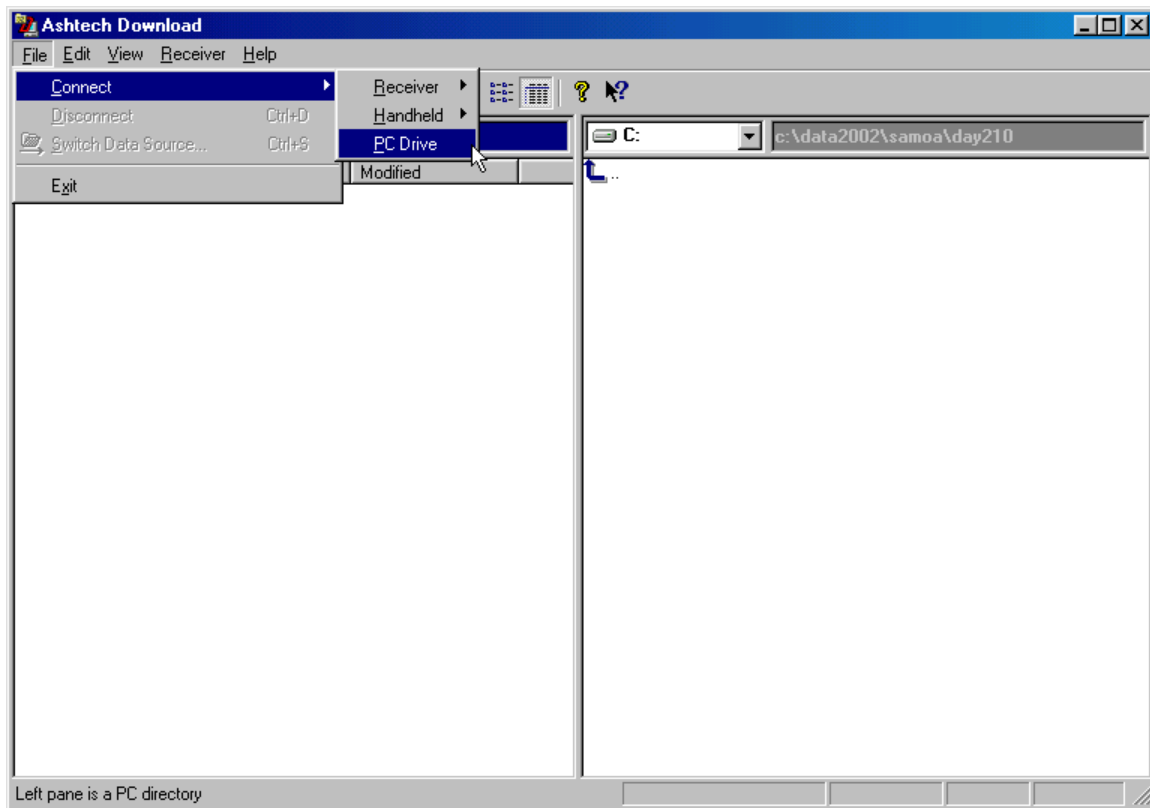
Depress the Black Eject switch to eject the PCMCIA PC Data card from the PC Card slot inside the Z-Xtreme receiver.

Insert the PCMCIA PC card into the TYPE - II slot in the Laptop PC, or PC Card Reader for the Desktop Computer...

From the PC's  menu, select **Start | Programs | Ashtech Solutions | Download...**

From the **Ashtech Download -> PC** menu...

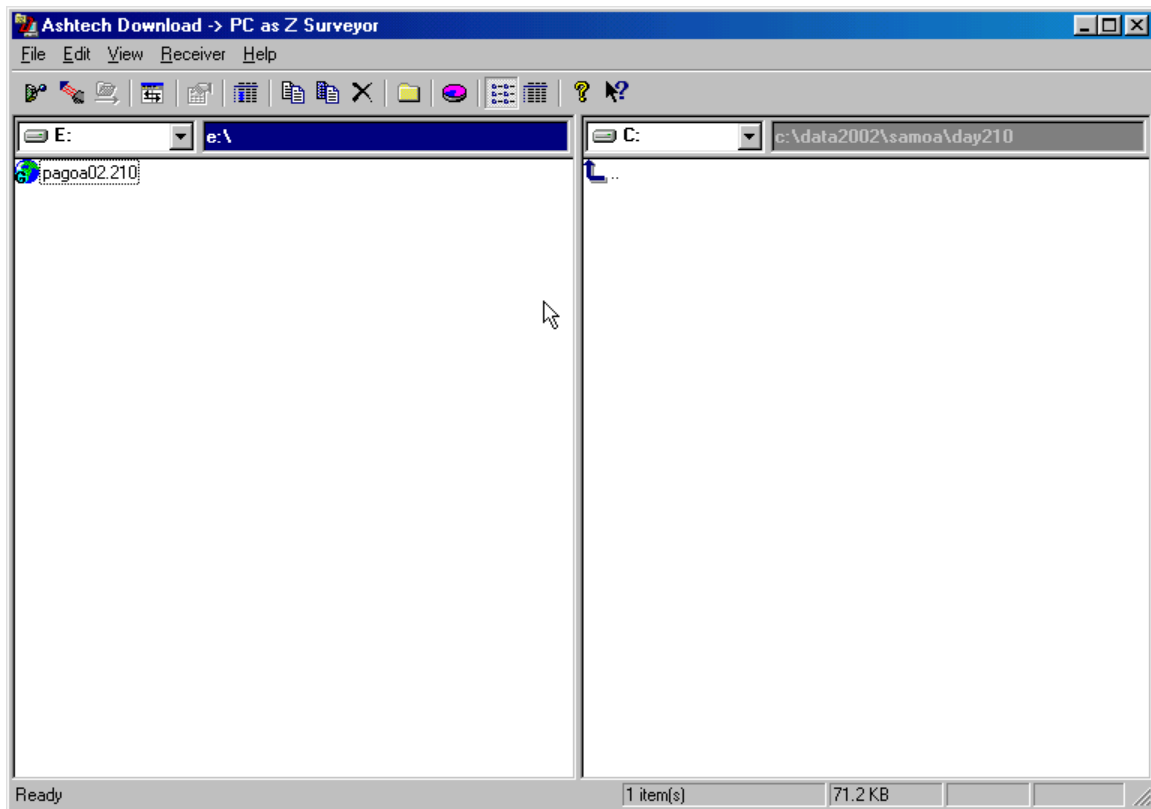
Select **F**ile | **C**onnect | **R**eceiver | **P**C Drive...



In the “**Left-Side**” window-pane, use the drop down  menu to select the desired Drive letter for the Computer's for the PCMCIA Type – II slot.

In this example, the detected PC Card Drive letter = **E:**

Screen Capture of the PC Data Card detection by the Ashtech Download Program...

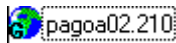



Once the Ashtech Download program has “Read” the PCMCIA Type – II Drive and scanned the contents of the PC Card, the data files contained on the PC Card will be listed.

The **“Right-Side”** window pane = the Computer’s current destination directory / Folder path.

Has specified in the previous tutorial, create and specify the destination directory on the Computer’s hard drive to transfer the GPS data files too.

In this example: **C:\Data2002\Samoa\Day210**

Back on the **“Left-Side”** Window pane, select the  file with single mouse-click...

Once the  file has been selected, copy the GPS Data file to the destination directory on the Computer.

There are three methods available to copy the GPS data file over to the PC:


Method 1:

The Windows Drag & Drop copy option, *high-light the desired file*, Left-Mouse click & hold, drag the file from the “Left Sided” window pane over the “Right Sided” window pane, and drop.

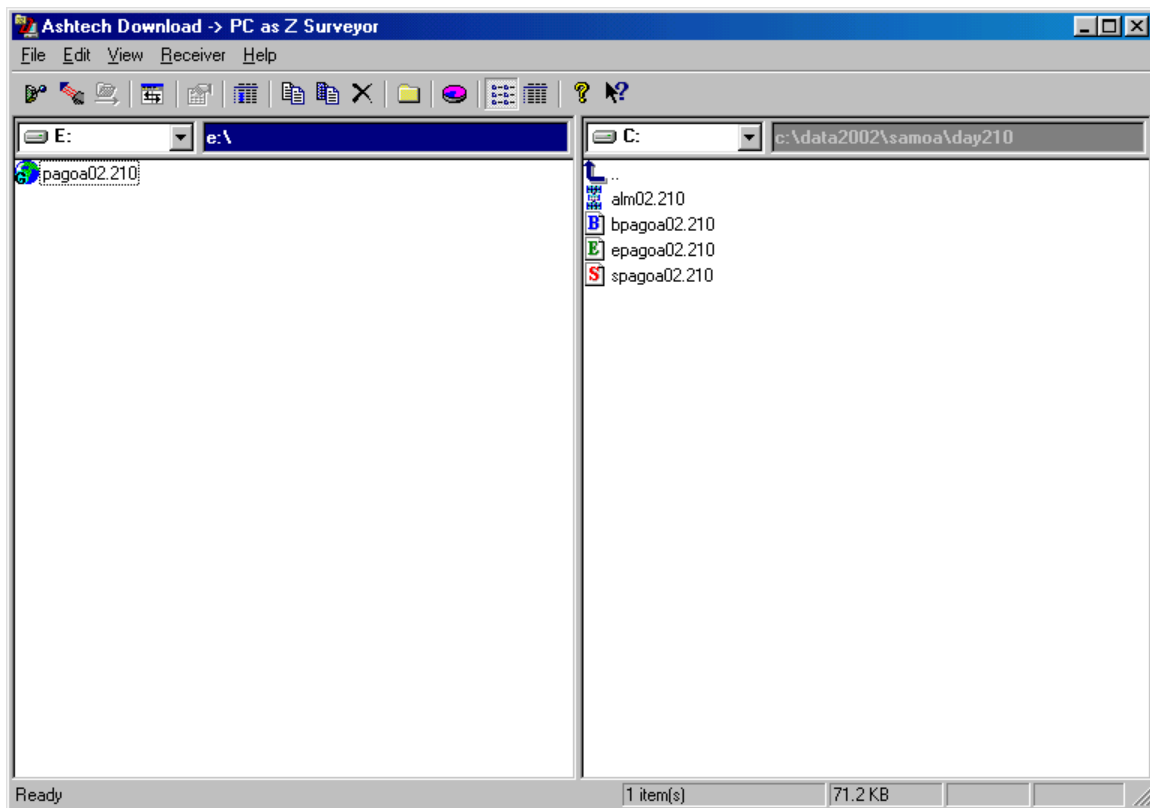
Method 2:

The pull-down menu option **E**dit | **C**opy to F5...

Method 3:

The **Copy Icon** option, click on the  Copy to icon...

After the GPS Data file was downloaded, observe the following display:

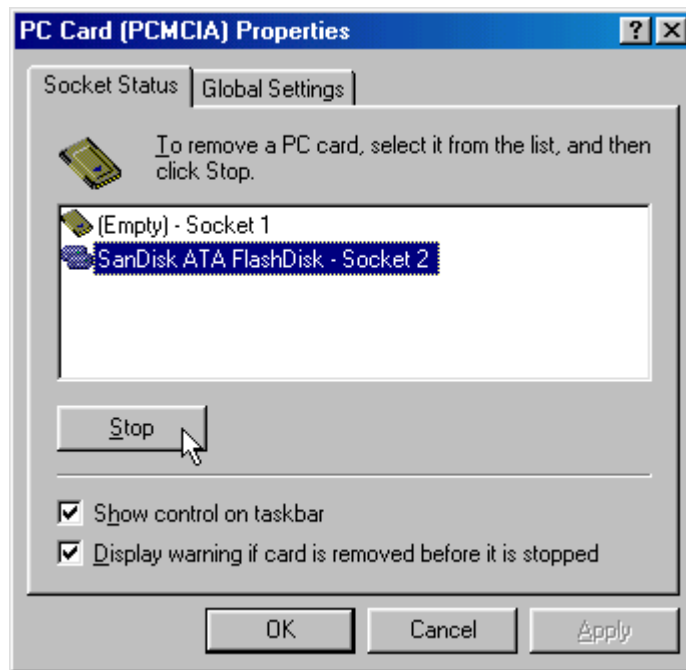


Screen Capture of successful GPS file Data Download...

If additional PC Data cards need to be Down loaded, follow the recommended PC Data Card ejection procedures from the Laptop PC, or eject the PC Data card from the PC Data Card reader Drive.

On Laptop PC's, this procedure may consist of the selecting the PC Card Icon on the Task Bar, Performing a Right-Mouse click, selecting the “**Adjust PC Card Properties**” option,

You may have to access the PC Card Properties via the **Start | Settings | Control Panel | PC Card...** menu



Then select the **Stop** menu button...



Then select the **OK** button.

Eject the PC Card from the PC Type – II drive, REPEAT the process as necessary for additional PCMCIA cards that contain GPS Data files.