

B TSIP Toolkit User's Guide

The GPS Tool Kit program disk includes several TSIP interface programs designed to help developer's evaluate and integrate the GPS module and create GPS and differential GPS applications. These programs run on a PC-Windows 95 or NT platform. They are a base on which to build application specific software, so the source code in ANSI C is included for many of these programs. The GPS Tool Kit program disk includes the following programs.

32 bit Windows Applications:

TSIPMonitor32: a 32 bit windows application that interfaces with a TSIP-speaking receiver through a serial port. The program accepts TSIP reports and displays them in a window with fields for position, velocity, time, receiver status and satellite track status. It allows you to exercise some basic TSIP commands. TSIPMonitor32 can also log TSIP report in binary format for later translation.

DOS Programs and C Source Code:

TSIPCHAT.EXE: a 16 bit DOS-based application that interfaces with a TSIP speaking receiver through a serial port. It allows you to exercise all TSIP commands. TSIPCHAT can log a TSIP report in binary format. Source code is provided.

TSIPPRNT.EXE: a 16 bit DOS-based application that interprets a binary TSIP data stream, such as logged by TSIPCHAT or TSIPMonitor32, and prints it to a file. Source code is provided.

For further information on the programs, see the README file on the Tool Kit disk.

A 32-bit Windows Application, TSIP Reader, is available from the FTP web site,

<ftp://ftp.trimble.com/pub/set/embedded/bin>

that interprets binary TSIP data streams.

B.1 TSIPMonitor32

TSIPMonitor32 requires Windows 95, 98 or Windows NT. Once the program is started, it immediately prompts for the serial port connected to the GPS receiver, see Figure B-1.

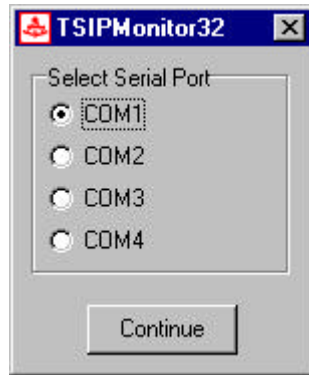


Figure B-1 TSIPMonitor32 - Serial Port Selection

The main window displays once the GPS receiver is communicating with the application, Figure B-2. Fields with question marks ? indicate that information is not yet available.

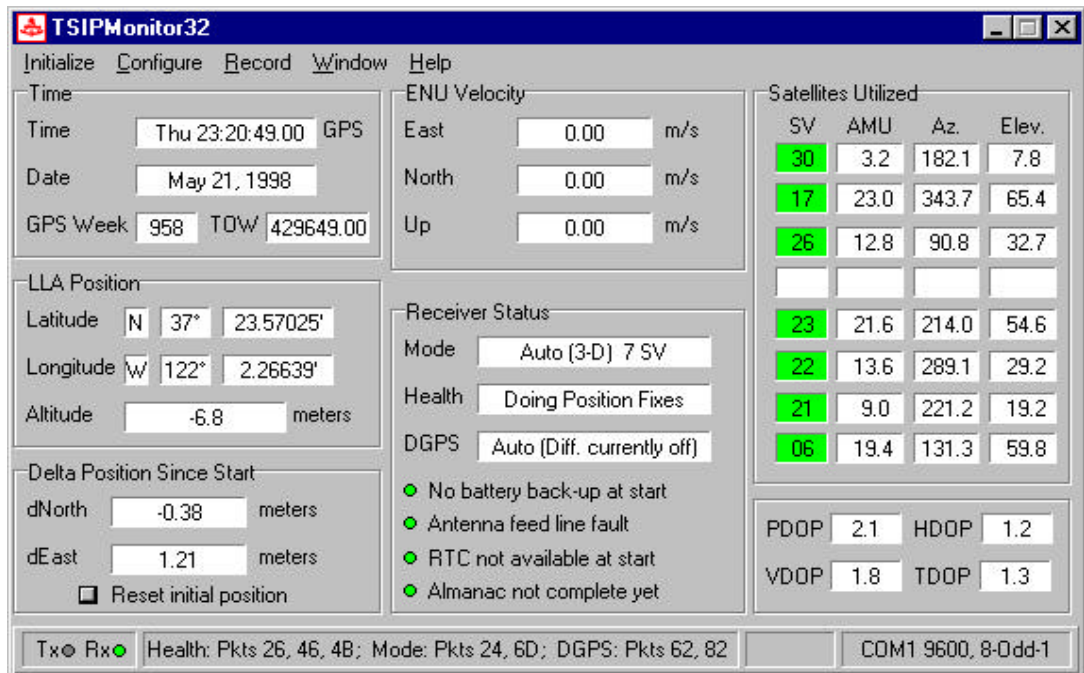


Figure B-2 TSIPMonitor 32 - Main Window

B.1.1 Delta Position

TSIPMonitor32 displays delta position which is the difference between the current position and the initial position. The initial position can be reset at anytime by clicking on the **Reset Initial Position** button on the TSIPMonitor 32 window.

B.1.2 File Storage

TSIPMonitor32 provides for file storage of the raw binary TSIP stream directly from the serial port. To turn data collection on or off, use the record pull-down menu. The recorded binary data stream can be translated into an ASCII file with the program TSIPRNT.

