CONFIGURING A GPS RECEIVER

To configure a GPS receiver, knowing the type of chipset your GPS is using is very important. The GPS chipset contains a powerful processor that is responsible for the user interface, all of the calculations, as well as analog circuitry for the antenna. The chipset also allows for data to be sent to the GPS receiver to configure parameters like, update rate, baud rate, sentence selection, etc.

In order to send commands over a serial interface to a GPS receiver, you will need a command set or reference manual. Before diving too far into the command set for a given module, be sure to check with the vendor. Many chipset vendors provide software that allows you to easily communicate and configure the GPS module over a serial port.

The following are datasheets and command sets for some of the more common chipsets.

SiRF chipsets:

- SiRF NMEA Reference Manual

- SiRF Binary Reference Manual

- SiRF Demo Software

UBlox chipsets

- u-blox6 NMEA and UBX Reference Manual

- u-center Demo Software

SkyTraq chipsets

- Skytraq Reference Manual

- SkyTraq Demo Software

Some chipsets allow for alternate protocols such as SiRF binary (SiRF chipset), UBX (ublox chipset), or a proprietary messages. These protocols contain the same information, but communicate using binary (instead of ASCII) for faster communication.

When communicating with a GPS receiver, most commands need to be terminated by a checksum. In most cases, you need to XOR each of your sentences. Here is a simple XOR online calculator.