



RadSafeGps GPS DDE interface

GPS Time	GPS Status	Comm. Port	
00:15:53.00 GMT	GPS Fix OK	53	9600
Latitude	Longitude	Speed	Altitude
-26.529158	151.841298	000.60	491
<input checked="" type="radio"/> + Odometer - <input type="radio"/>	Odo. Zero	Start	Quit
0.267	Odo. Set		

A critical function of RssiLog08 is to provide an accurate record of the location where a data record is generated. My systems are designed to interface with RadSafeGPS application which provides real-time GPS based data to RssiLog08 and other appropriately configured & coded applications. **RadSafeGPS** must be **loaded** before RssiLog08.

The data fields available are.

1. **GPS Time**.. This is parsed from the appropriate GPS NMEA sentence.
2. **GPS Status**.. Current status of the validity of GPS data based on NMEA sentence.
3. **Latitude** ... WGS84/GDA94 latitude parsed from NMEA sentence.
4. **Longitude** .. WGS84/GDA94 Longitude parsed from NMEA sentence.
5. **Speed** ... KM/Hr Parsed from NNMEA sentence.
6. **Altitude** .. Metres Parsed from NMEA sentence.
7. **Odometer**.. Km accumulating calculated value from sequential GPS fixes.

Controls.

8. **Comm. Port** ... Sets the default communications port number and baud rate. 9600/4800
9. **Odometer +**.. Default which causes the odometer to increment from a set value.
10. **Odometer -** .. User selected which causes the odometer to decrement from a set value.
11. **Odo. Zero** ... Causes the odometer value to be set to 0 Km. at next GPS update..
12. **Odo. Set** ... Prompts user to enter a starting Km other than 0 for the odometer.
13. **Start** .. Causes RadSafeGPS to commence running.
14. **Quit** .. Causes RadSafe GPS to close immediately.

NB. The **odometer Km values** are generated by accumulating the calculated distance between consecutive GPS position fixes. The distance between fixes is calculated by a **trigonometric algorithm** based on the mean value of the **Earths radius**. Normal GPS position errors, particularly around curves at slow speed, cause slight errors in the distance calculated between fixes. GPS odometer **errors** are cumulative and can degrade the odometer accuracy over **long routes** but still provide a useful reference for determining record or anomaly location.

NB. The Odometer value is limited to 5000 Km. If the GPS has not acquired a valid GPS fix before being started, it will produce an Odometer position calculated from 0.000000 to the position of the first fix, producing a highly inaccurate starting Odometer value. The user is prompted to enter an appropriate odometer starting value.