

Embedded Software for Aerospace Systems, Fall 2009

Homework Assignment

Write a program that reads the attached GPS message log, selects the GGA messages, extracts all of the fields from the GGA message and then prints out the fields.

File snippet:

```
$GPGGA,200300.563,3236.3190,N,08528.9499,W,2,07,1.4,219.0,M,-28.6,M,,0000*60
$GPGSA,A,3,07,08,11,28,19,17,48,,,,,,,,,2.4,1.4,2.0*34
$GPGSV,3,1,10,08,81,241,50,11,58,082,46,28,52,328,52,07,47,161,48*71
$GPGSV,3,2,10,17,41,252,47,25,27,160,41,48,27,244,40,19,11,049,29*7D
$GPGSV,3,3,10,15,07,309,25,20,02,132,*76
$GPRMC,200300.563,A,3236.3190,N,08528.9499,W,000.0,000.0,090909,,D*74
$GPVTG,000.0,T,,M,000.0,N,000.0,K,D*08
$GPGGA,200301.563,3236.3190,N,08528.9500,W,2,07,1.4,218.9,M,-28.6,M,,0000*68
```

Example output (from first GGA message above):

```
Time = 20:03:01 UTC, Latitude = 32.6053167, deg Longitude = -85.4824983, deg
Quality = Differential GPS, Satellites = 7, HDOP = 1.4, Altitude = 219.0 m
```