USER MANUAL

GPS APPLICATION

Table of Contents

1 Setting up to run DCGPS

Dcgps requires a number of libraries to be installed before executing. The libraries that are required to be already installed include:

- gpsd
- gpsd-clients
- python-gps
- libncurses5-dev
- libgps-dev

1.1 Running in Linux

1. Assuming all libraries are correctly installed.

2. Open **terminal** and type in

    sudo killall gpsd

    sudo gpsd /dev/ttyUSB0 –F /var/run/gpsd.sock

3. **Run** dcgps by typing in

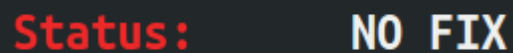   *./dcgps*

2 How to use DCGPS

1. Make sure **GPS dongle** is properly connected into laptop / raspberry pi.
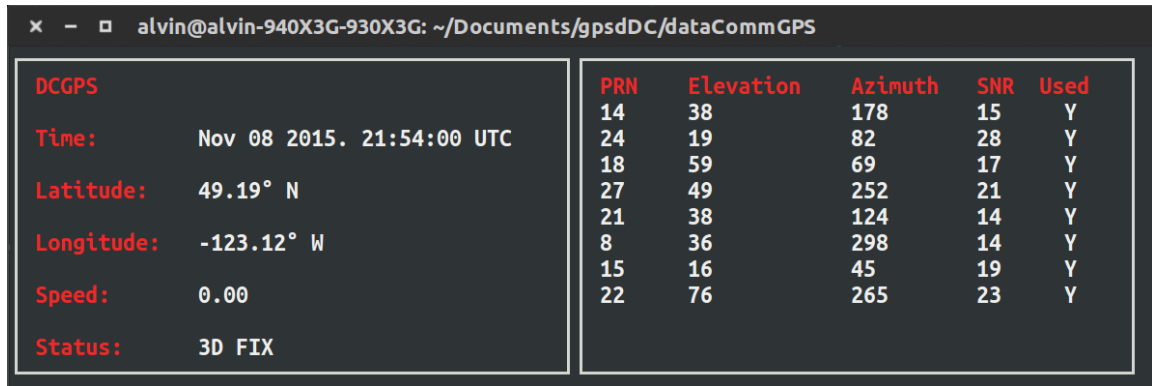
2. Wait until the program displays a fix in the **Status** field

    a. If the program displays **NO FIX**, this may mean that there are simply not enough satellites to determine your location. Wait for several minutes to see if the program can acquire more satellites.

3. If a fix is acquired, your screen should be similar to the following screenshot.

```
×  −  □   alvin@alvin-940X3G-930X3G: ~/Documents/gpsdDC/dataCommGPS

DCGPS                                      PRN    Elevation    Azimuth   SNR  Used
                                           14     38           178       15   Y
Time:        Nov 08 2015. 21:54:00 UTC     24     19           82        28   Y
                                           18     59           69        17   Y
Latitude:    49.19° N                      27     49           252       21   Y
                                           21     38           124       14   Y
Longitude:   -123.12° W                    8      36           298       14   Y
                                           15     16           45        19   Y
Speed:       0.00                          22     76           265       23   Y

Status:      3D FIX
```