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## GPS Geodesy - LAB 8

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### Processing a 24-hours RINEX observation file (pseudorange data)

We are now ready to put everything together and write a program to process GPS pseudorange data!

Using the RINEX observation file `sjdv0100.02o` and the RINEX navigation file `epgga2.010`, compute and plot the following time series (on the same figure, using ‘subplot’):

1. Site position, north-south component
2. Site position, east-west component
3. Site position, up component
4. Pdp

Your program should be as modular as possible. It should call the functions that you have written during previous labs. Here is a possible program structure:

1. Read rinex navigation file (`read_rinexn.m`)
2. Read rinex observation file (`read_rinexo.m`)
3. For each epoch in the rinex observation file:
  - a. Compute satellite position (`get_satpos.m`);
  - b. Process pseudorange data and find site position (X,Y,Z) in ECEF coordinates (`solve_PR.m`);
  - c. Increment a site position vector;
  - d. Increment a pdop vector.
4. Convert X, Y, Z positions into N,E,U
5. Plot the site position and PDOP vector versus time
6. Save plot as a jpeg file

That’s all!