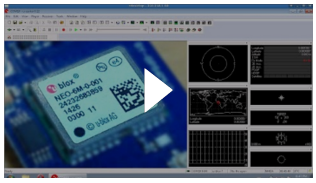
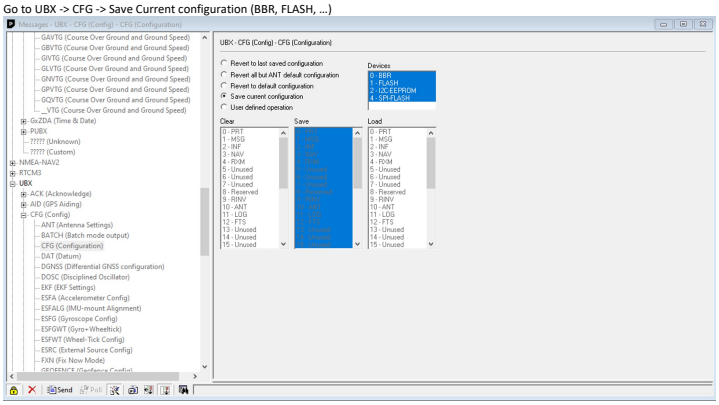
NEO-M9N

Freitag, 3. Juni 2022 09:52

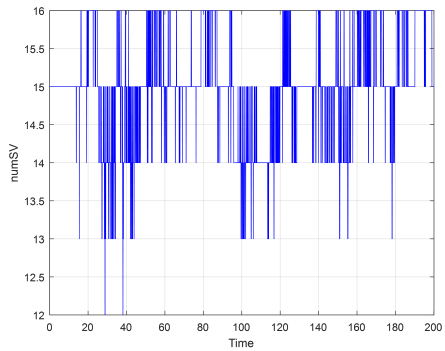
Comissioning see: [10Hz U-blox binary GPS data in 66 lines of code (arduino)]



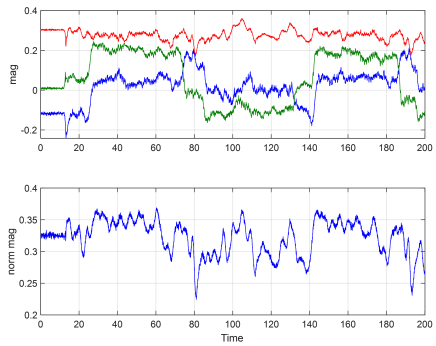
1. Use u-blox center connected via uart
2. Reset to default configuration (gear symbol with red dot)
3. Open Messages (F9)
   a. Disable NMEA child messages (right click and disable)
   b. Set UBX -> CFG (Config)
      i. -> NAV5
         1) Dynamic Model: 7 - Airborne < 2g
         2) Fix Mode: 2 -> 3D only
      ii. -> PMS
         1) 0 - Full Power, tick save
      iii. -> RATE
         1) Measurement Period 400 ms
   c. Set UBX -> NAV (Navigation)
      i.) -> PVT
         1) Enable Message (right cklick and enable)
4. Alternatively to 3. you can also go Tools -> Receiver Configuration TransferFile->GNSS and apply: *20220602_M9N_config_00.txt*
5. Open Messages (F9)
   a. Go to UBX -> CFG -> Save Current configuration (BBR, FLASH, ...)
   b. 

Tests:

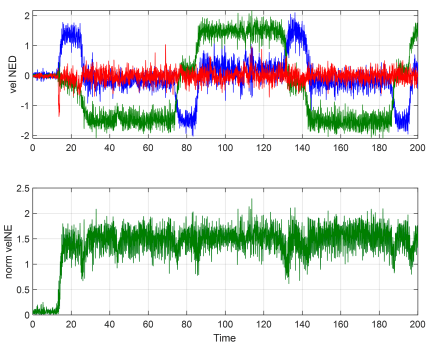
- GNSS unit runs at 25 Hz, readout via UART
- Hot start takes about 120 sec until >14 satellites are locked
- Max satellites lock is 16



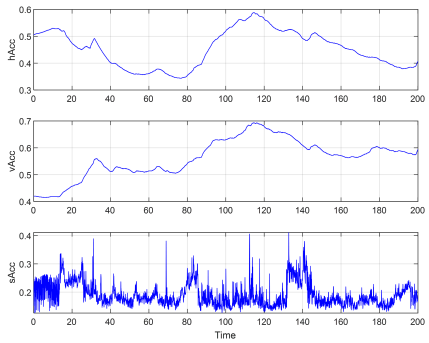
Number of satelites for lock



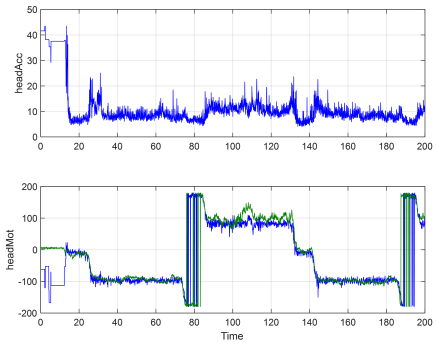
Calibrated magnetometer



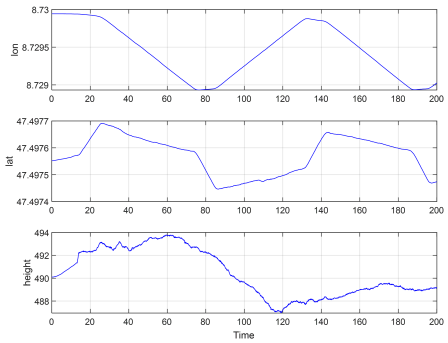
Velocity in NED local plane (m/s) (raw from GPS)



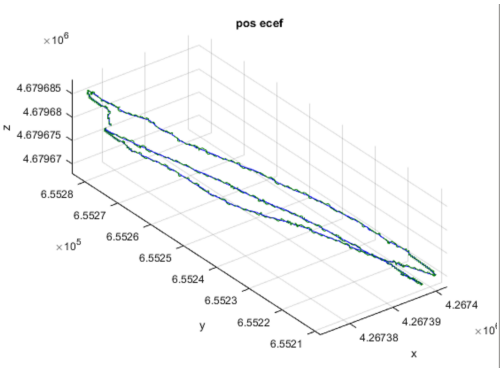
Horizontal accuracy (m), vertical accuracy (m), speed accuracy (m/s)



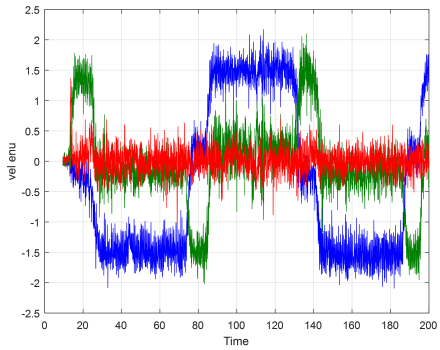
Heading accuracy and heading (deg), green is heading from Magnetometer



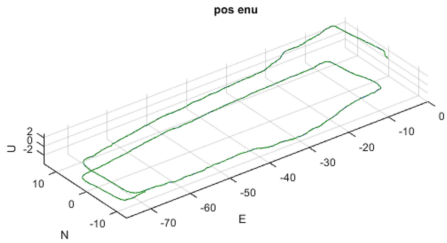
Longitude, latitude and height above ellipsoid (deg,deg, m)



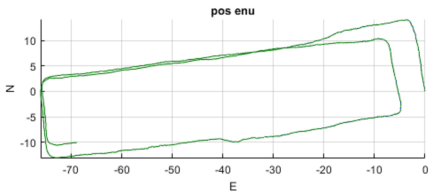
Position in ECEF (m) (C++ double calculation from lon, lat, height)



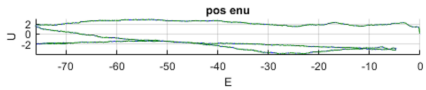
Velocity in ENU local plane (m/s) (raw from GPS)



Position in ENU (m) (C++ double calculation from lon, lat, heigt)



This should be a rectangle



This should al be at approx 1 m