GEOTAGGING

User Guide

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GEOTAGGING

GENERAL

Please note that image filename generated in the LOG files starts from 1 onwards, therefore you might need to batch rename all the photos that have been captured in order to recognize for the geotagging software. Useful tool to re-name photos in batches is Adobe Lightroom.

X2 / LLA LOG

1. DOWNLOAD GEOTAG TOOL. – DOWNLOAD LINK
2. EXTRACT FILES TO WINDOWS FOLDER.
3. MOVE X2.CSV / LLA.CSV LOG FILE TO LOCATION WHERE PHOTOS ARE LOCATED.
4. OPEN COMMAND PROMPT AND CHANGE DIRECTORY TO WHERE LOG FILE AND PHOTOS ARE LOCATED.
5. EXECUTE THE FOLLOWING IN COMMAND PROMPT:

Command line without IMU data:

```
exiftool -csv=X2.csv -gpslatituderef=N -gpslongituderef=W -gpsaltituderef=above -gpstrackref=T .
```

Command line with IMU data:

```
exiftool -csv=X2.csv -gpslatituderef=N -gpslongituderef=W -gpsaltituderef=above -gpsimgdirectionref=M -gpstrackref=T .
```

After the photos have been geotagged you can review the EXIF data to ensure that all the tags have been written by executing the following command in the command prompt:

```
exiftool example.jpg
```

To change directories in command prompt, do the following command:

```
cd C:\ImageFolder
```

Special note: In the geotagging command line you may need to change the references for LAT/LONG depending on your current geolocation -gpslatituderef=**N** -gpslongituderef=**W**

N – Positive Latitude **S** – Negative Latitude **E** – Positive Longitude **W** – Negative Longitude

ADJUSTING X2 LOG FOR PIX4D

Simply delete the first ROW of the X2.CSV and move all data points to start from ROW1 – then you may input file into Pix4D with your images, and you are good to go! If you have purchased and enabled **Seagull #IMU** then the LOG file will contain extra data such as ROLL, PITCH, YAW, HORIZONTAL ACCURACY and VERTICAL ACCURACY.

PPK PROCESSING

This tutorial is meant to cover basics on how to convert raw data files and steps required for post processing.

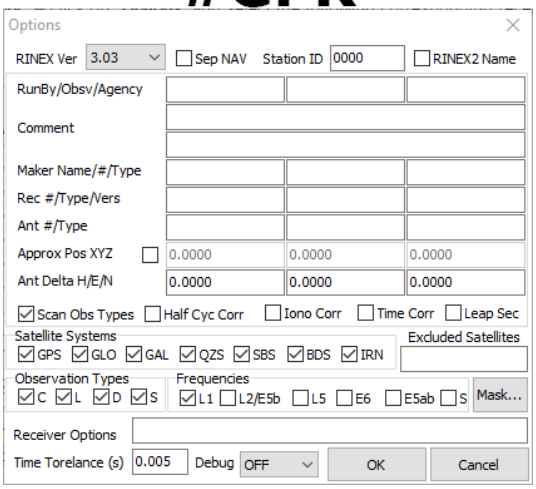
Before proceeding download the latest RTKLIB version via link below.

***** Download RTKLIB_v2.4.3_B33.zip from HERE *****

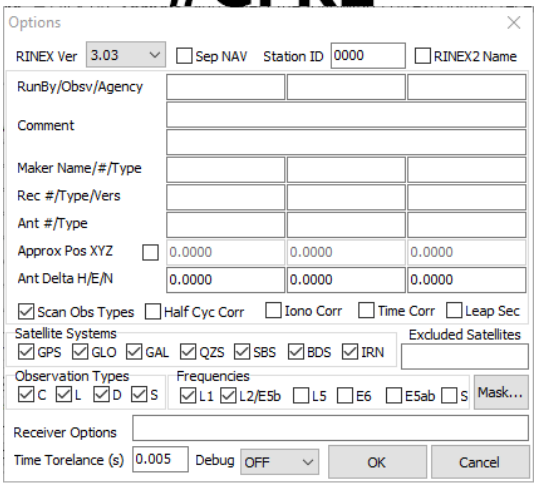
CONVERTING RAW LOG TO RINEX FORMAT

STEP 1: Open "RTKLIB CONV" – click on **"Options"** and select the following corresponding receiver used.

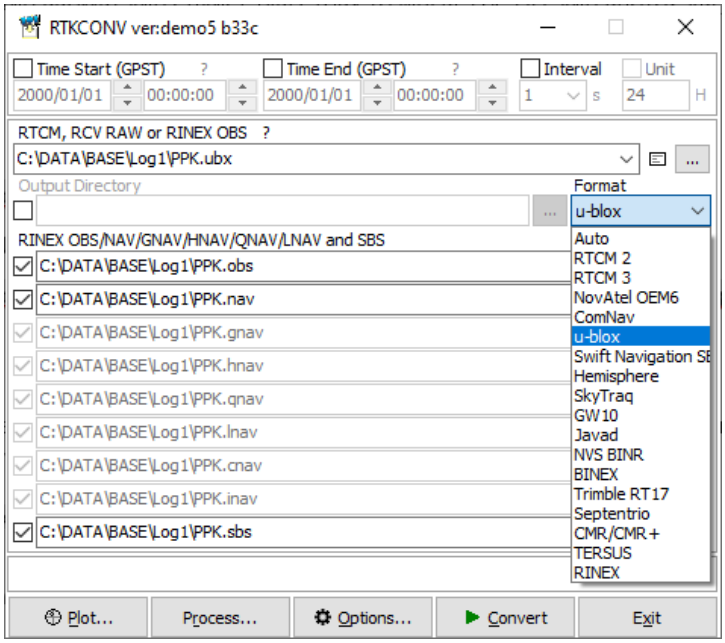
#GPK



#GPK2



STEP 2: Add "PPK " RAW file and choose format "u-blox".



STEP 3: Click "Convert" – after the process is finished you should have .obs and .nav (*BASE) files generated.

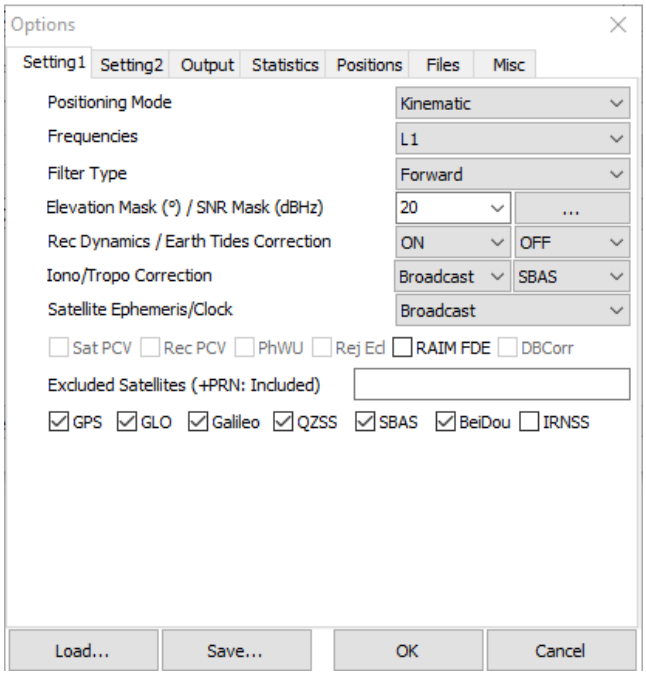
POST PROCESSING

STEP 1: Open "**RTKPOST**" – click on **"Options"** and select the following for corresponding receiver used.

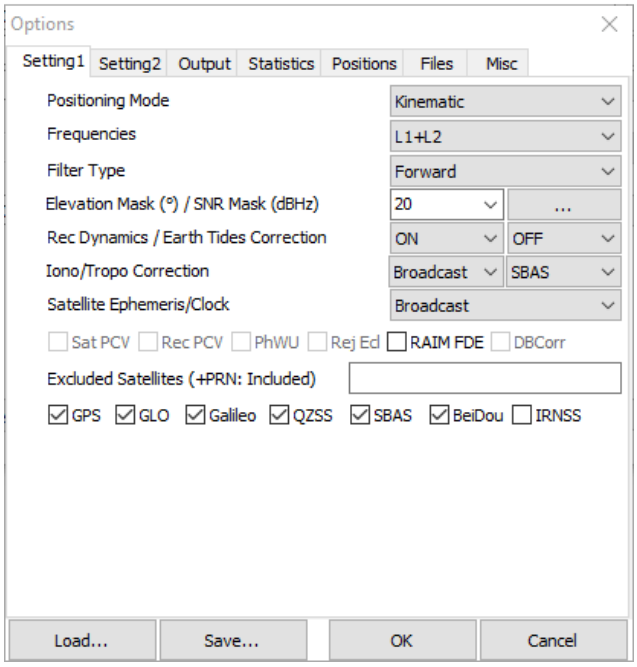
"OPTIONS" SETTING 1 TAB

Note: You may adjust Elevation Mask / SNR Mask values in to filter out satellites with low signal strength.

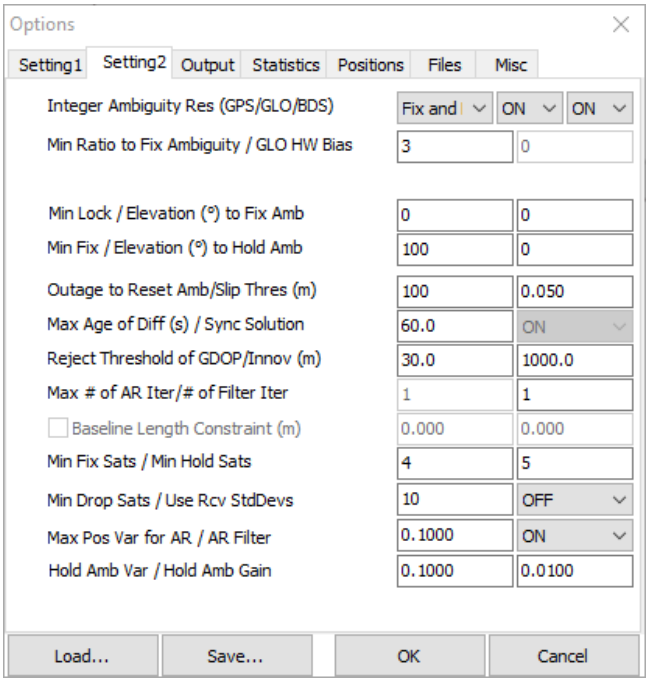
#GPK



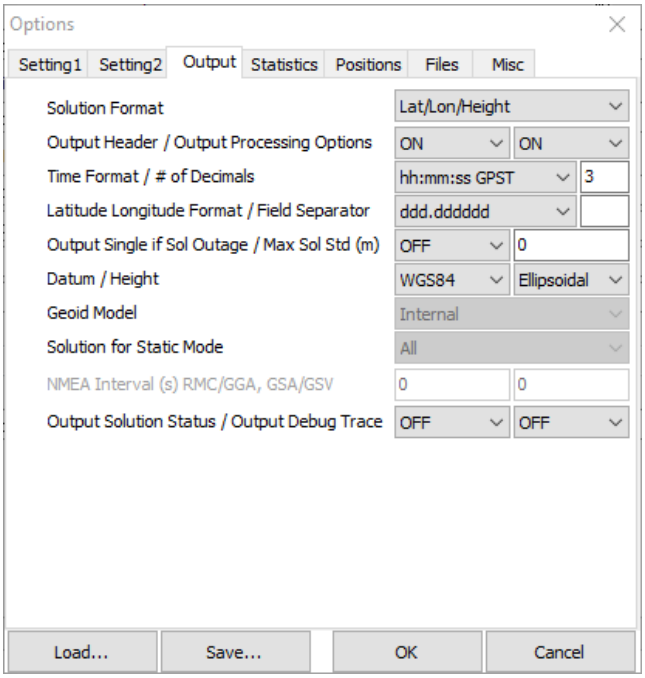
#GPK2



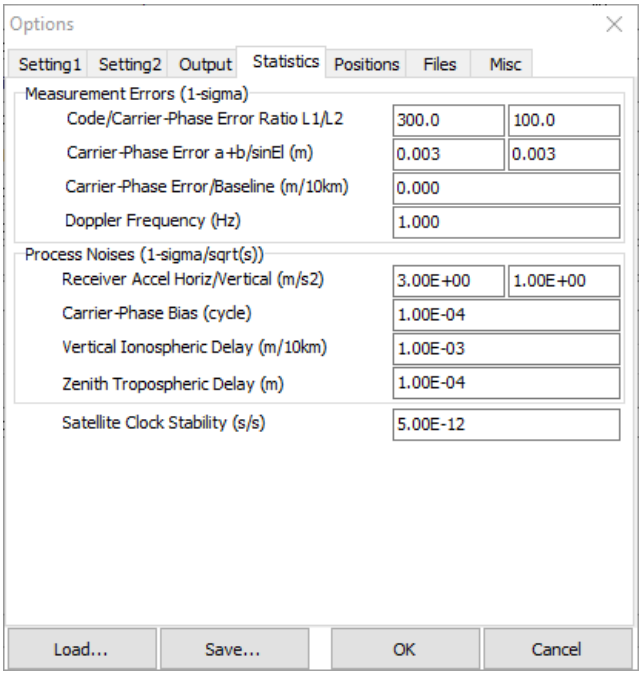
"OPTIONS" SETTING 2 TAB



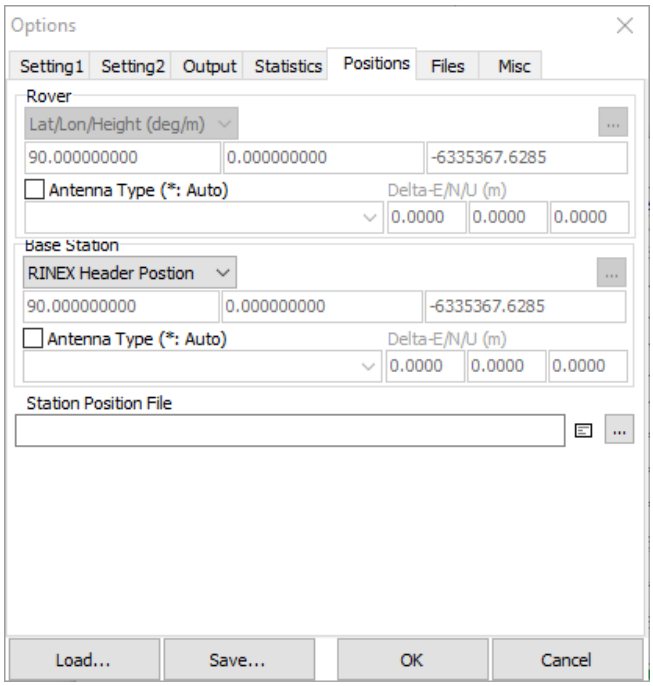
"OPTIONS" OUTPUT TAB



"OPTIONS" STATISTICS TAB

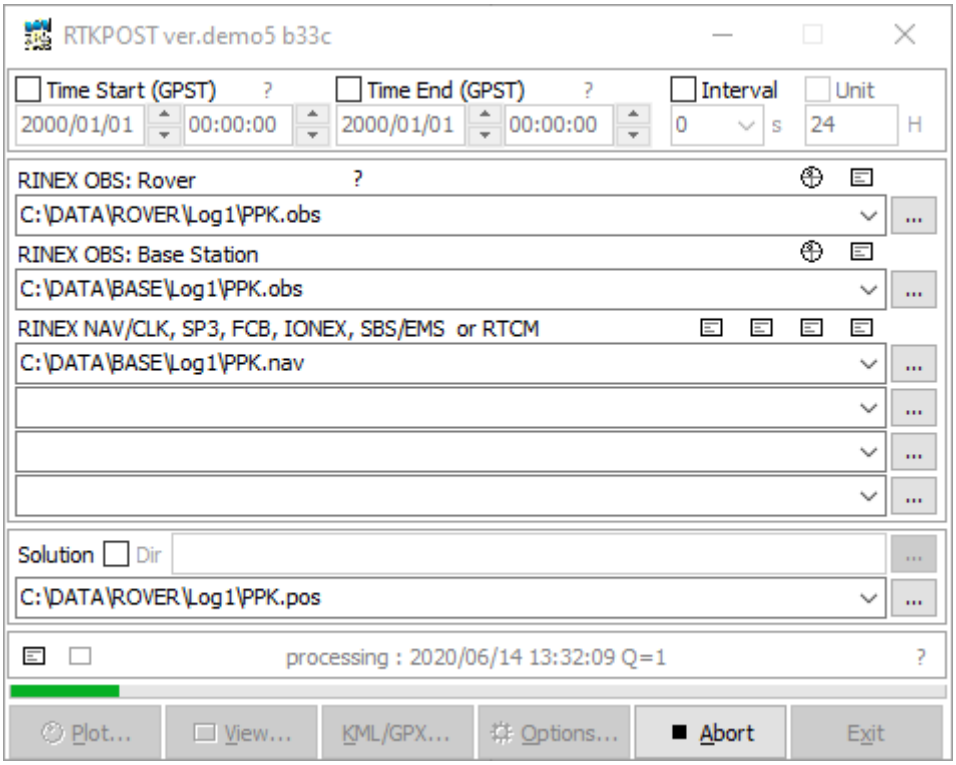


"OPTIONS" POSITIONS TAB



STEP 2: Input **"ROVER" .obs** / **"BASE" .obs** / **"ROVER" or "BASE" .nav** – files into their corresponding fields.

Note: You may use BASE.nav or ROVER.nav files in the 3rd selection field.



STEP 6: Click "**EXECUTE**" and wait until process is complete – which is indicated by green bar as well as text status **"done"**.

Note: Once you have pressed **"EXECUTE"** – do not cancel the program as it may take a while for the process to read and start processing depending on the size of the files.

