

## Quick Guide of NaviViewerUb

### Overview

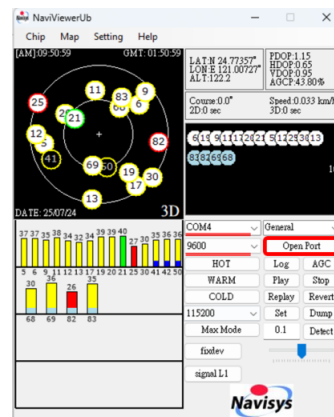
NaviViewerUb is a GNSS viewer tool developed by NaviSys Technology Corp. NaviSys keeps the use of NaviViewerUb as simple as possible. The use of it is very straightforward except following obscure functions.

### NaviViewerUb Overview



### How to Start

1. Connect the NaviSys GNSS product to the computer/laptop with NaviViewerUb installed
2. Set the correct COM port, Baud Rate (9600, 19200, or 115200), and then click **Open Port**.

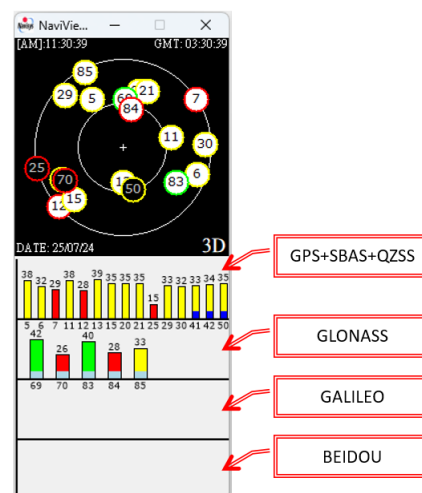


### Note:

If there is no output, please click **Close Port** first, and check the following:

1. Verify the correct port and baud rate are selected.
2. Confirm that the hardware setup is correct.

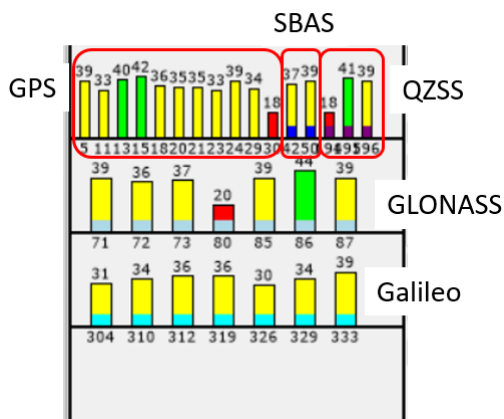
### Signal Bars



1. Signal strength is represented by the bar length and color
  - Blue:  $\geq 50$ , green:  $\geq 40$ , yellow:  $\geq 30$ , red:  $< 30$
2. Satellites from different systems are displayed in

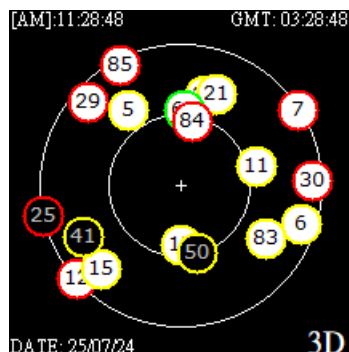
different colors at the bottom of the signal bars:

- GPS, the signal bar appears in the same color as the signal strength.
- QZSS
- SBAS
- GLONASS
- Galileo
- BeiDou

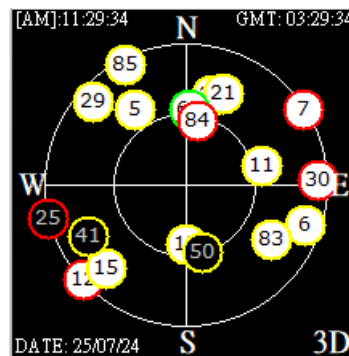


## Clicks and Double Clicks

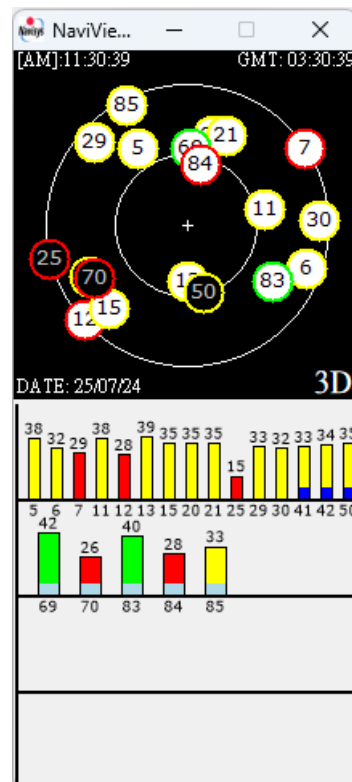
- Click on the Radar Window, it allows toggling (turning on or off) the direction (North, East, South, West) and cross-line indication. Double clicks toggles the normal/shrunk NaviViewerUb. E.g. click on following window



Get



If double click it, one gets the shrunk viewer as shown below.



- Click on the display console, display suspends.

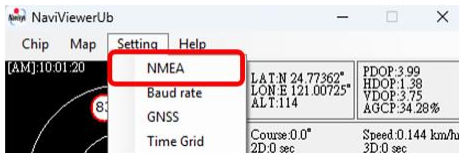
```

$GNGLL,2446.4141,N,12100.4368,E,0.35552,0.00,A,D,M9
$GNGSA,A,3,20.30,24.06,18.13,15.05,196.199,194.0,62.0,38.0,49.1*06
$GNGSA,A,3,11.29,0.62,0.38,0.49,1*08
$GNGSA,A,3,67.69,81.82,68.83,0.62,0.38,0.49,2*08
$GNGSA,A,3,19.33,04.10,11.12,0.62,0.38,0.49,3*0F
$GNGSA,A,3,28.03,33.38,01.43,08.41,13.60,39.10,0.62,0.38,0.49,4*00
$GNGSA,A,3,07.40,16.06,11.27,42.09,24.25,0.62,0.38,0.49,4*0F
$GNGSA,A,1,10.09,02.00,0.62,0.38,0.49,5*0E
$GNRMC,0.35552,0.00,A,2446.4141,N,12100.4368,E,0.01,0.00,1.30824,,D,V*09
$GNVTG,0.00,T,M,0.01,N,0.03,K,D*24
$GNZDA,035552.000,13,08,2024,,*42
Open COM3 BR:115200bps
    
```

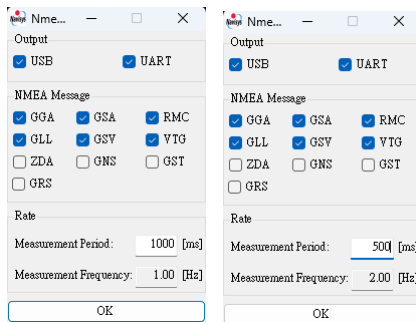
Click again to resume display.

## Setting - NMEA

1. Click on **Setting => NMEA**.



Get left below.

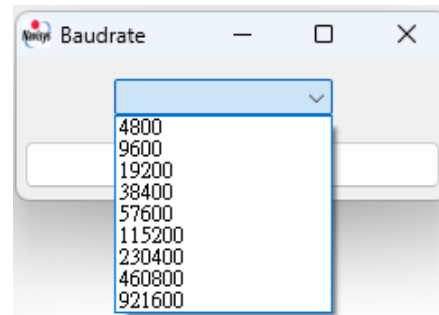
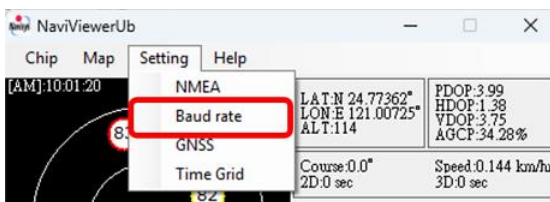


Change it to right above and click on **OK**. It outputs GGA, GSA, RMC, ZDA, GST, GLL, VTG every second and GSV every 5 seconds. Update rate 2 Hz.

Please be noted that higher update rate (measurement frequency) outputs more data per second and thus may require higher baud rate to avoid data loss.

## Setting – Baud rate

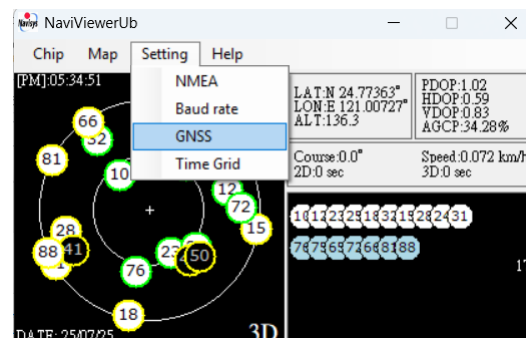
1. Click on **Setting => Baud rate**.



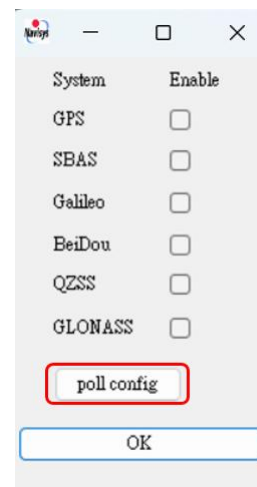
Select the new baud rate and press **OK**. The output suspends. Please close port and open with new baud rate to resume communication with GNSS.

## Setting – GNSS

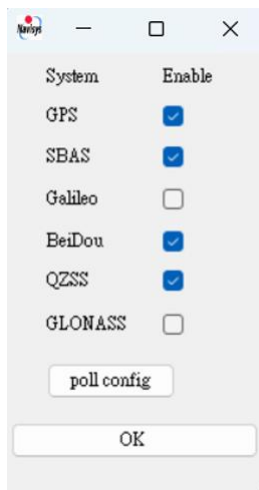
1. Click on **Setting => GNSS** for enable/disable satellite systems



2. Poll GNSS configuration before setting.

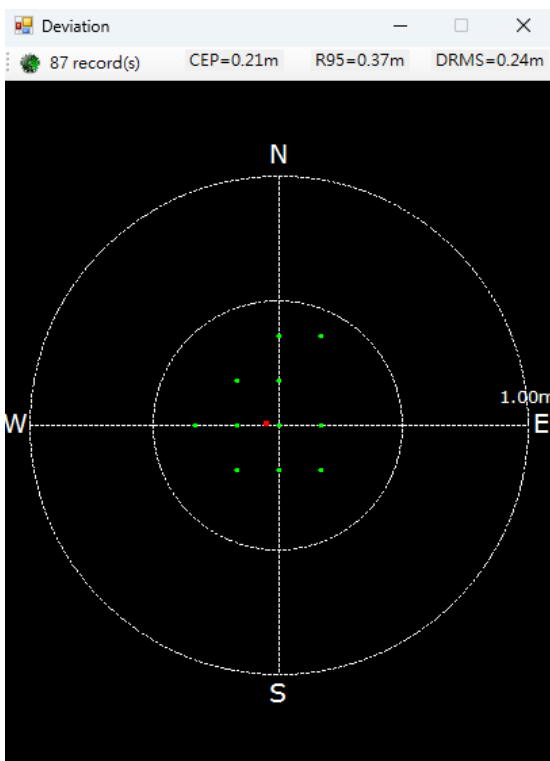
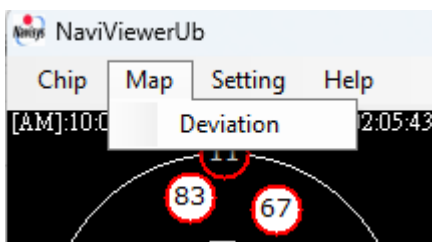


- Choose GNSS and click **OK** to complete setting up.



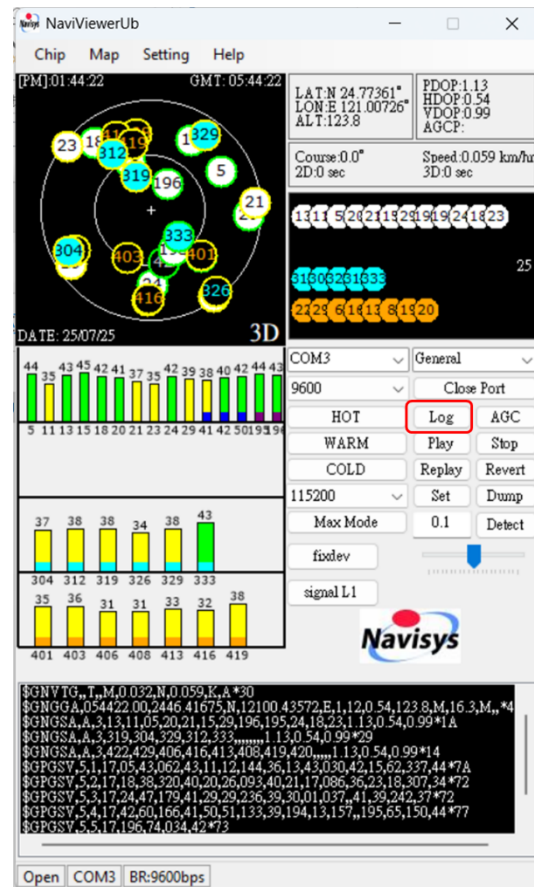
## Deviation function operation

- Click on **Map => Deviation** to create the Deviation window for deviation statistics.

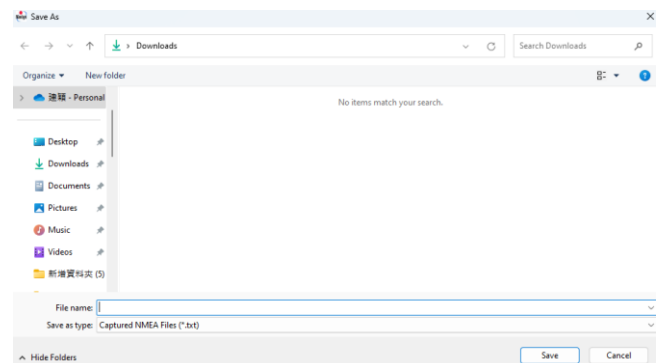


## Log the Output

Click on **Log**.

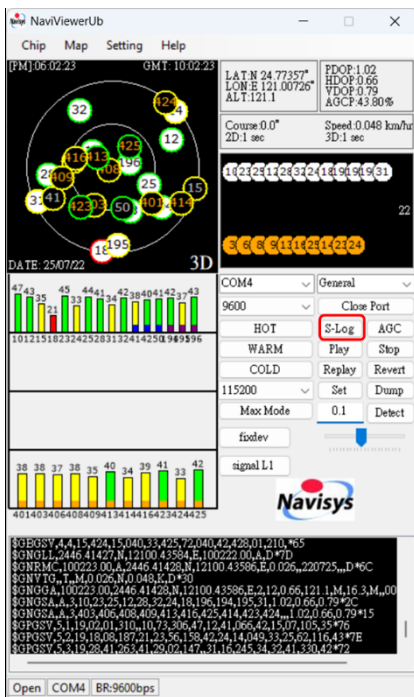


Open the window and save log file



## Stop Log

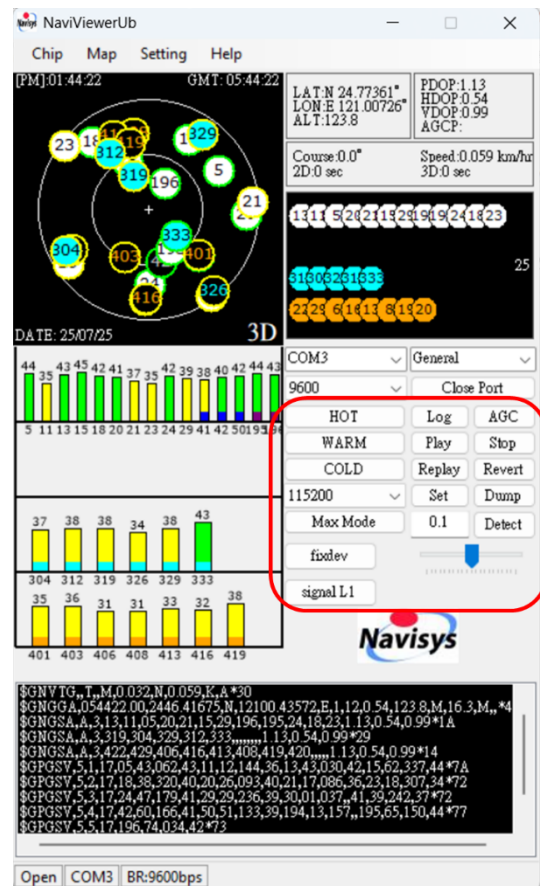
Click on **S-Log**.



Open the log file by an editor/viewer tool.

```
$GPRSV,4.4,15.424,15.040,33.425,72.040,42.428,01.210,76.5
$GNGLL,2446.41427,N,12100.43584,E,100222.00,A,D*49
$GNGSA,A,3,23,13,29,20,24,196,199,195,194,18,15,05,0.61,0.38,0.48,1*0B
$GNGSA,A,3,84,83,69,79,68,78,85,,,,,0.61,0.38,0.48,2*08
$GNGSA,A,3,33,10,04,11,12,09,19,36,,,,,0.61,0.38,0.48,3*01
$GNGSA,A,3,39,38,03,16,59,08,06,01,41,13,25,02,0.61,0.38,0.48,4*00
$GNGSA,A,3,27,04,60,28,09,33,23,32,24,30,10,07,0.61,0.38,0.48,4*03
$GNGSA,A,3,40,,,,,,0.61,0.38,0.48,4*00
$GNGSA,A,3,10,,,,,,0.61,0.38,0.48,6*07
$GNRMC,0.060609.000,A,2446.4145,N,12100.4361,E,0.02,0.00,130824,,D,V*0A
$GNVTG,0.00,T,M,0.02,N,0.03,K,D*27
$GNZDA,0.060609.000,13,08,2024,,*4F
```

## Other functions



Click on **HOT** : Hot start.

Click on **WARM** : Warm start.

Click on **COLD** : Cold start.

Click on **AGC** : Refresh AGCP.

Click on **Play**: Press the button to select the file out of the window, select the file to play.

Click on **Stop** : stop playback.

Click on **Replay** : Replay the log file.

Click on **Max Mode** : to change power configuration, "Max Mode" or "Eco Mode"

Click on **fixdev** : to change deviation, "fixdev" or "normal"

Click on **signal L1** : to change signal band "signal L1" or "signal L2"