

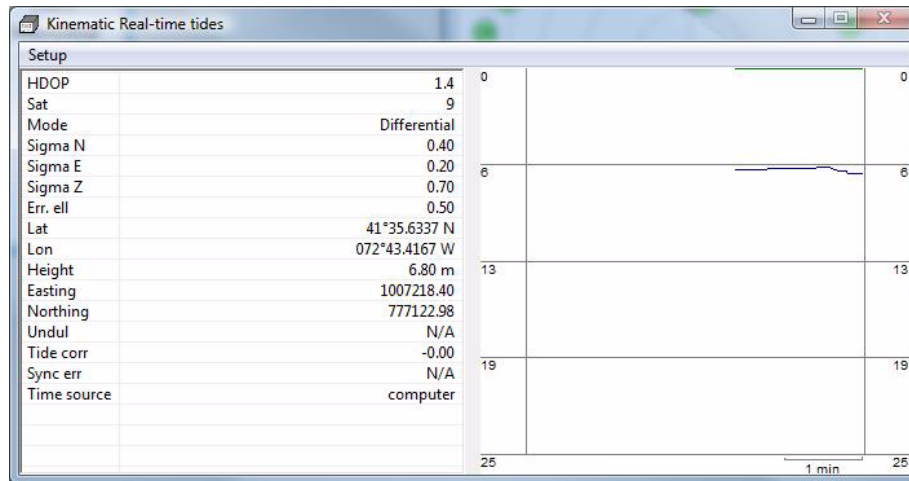


New Error Ellipse and Satellite Windows in Survey

By Roy Goyette

A recent addition to the GPS and Kinematic drivers provides users with some long awaited additional graphic information on the Error Ellipse, and the position and number of satellites being used by your GPS.

FIGURE 1. Sample GPS Device Window

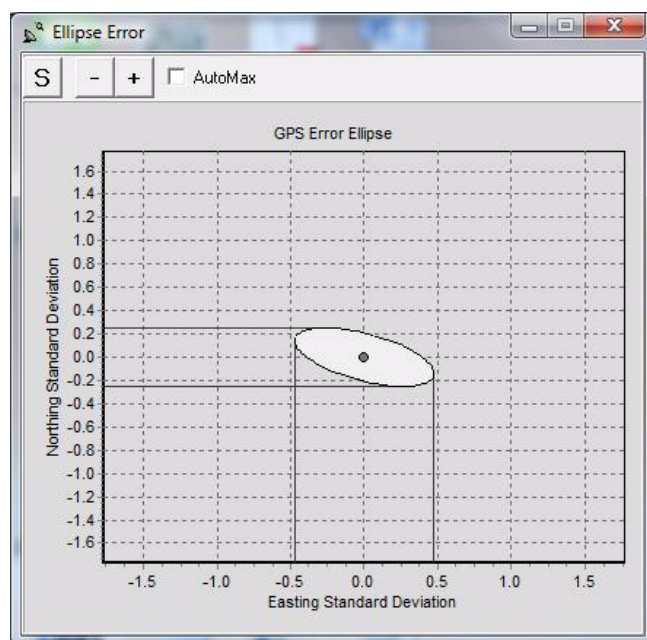


Most of us are very familiar with the standard GPS/Kinematic window that shows Lat/Lon, Height, Easting, and Northing etc in theHYPACK® SURVEY program. It shows you a lot of information but takes time to read and, during a survey, time is not one of the things we have in abundance. To assist you with these items HYPACK® is introducing two new graphical windows which enable you to get your Ellipse Error and Satellite information at a glance.

INTRODUCING THE ELLIPSE ERROR WINDOW

The Ellipse Error window will give you a graphical representation of your position error showing you the 95% confidence area and allowing you to determine if they are within this area at a glance.

FIGURE 2. *Sample Ellipse Error Window*



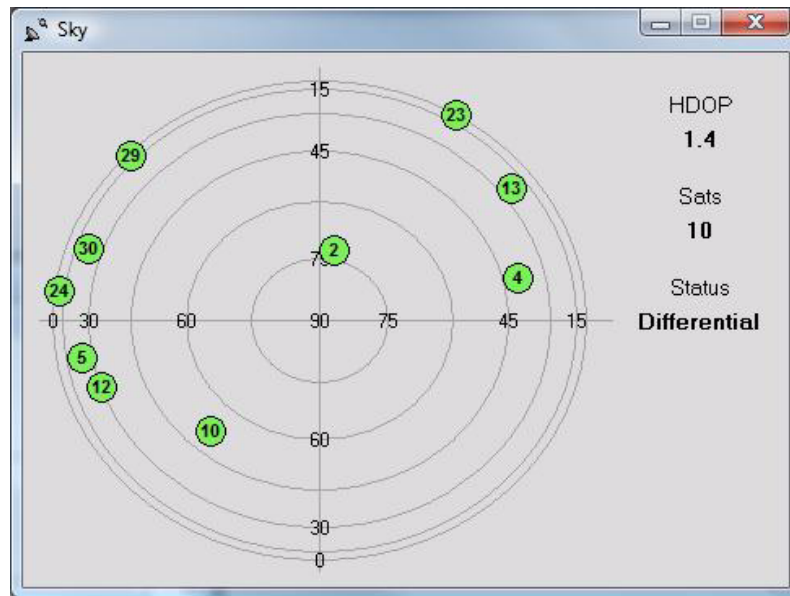
Horizontal and Vertical scales give you instant feedback on this vital information. You can adjust your scale manually by clicking on the – or + buttons, or choose to allow the program to set them automatically.

To view the window your GPS unit must be outputting the GST message and you must add the window to the HYPACK® SURVEY display using the Window menu.

SATELLITE WINDOW

The second new window shows the number of Satellites, their position, and numbered assignment in the sky, along with the HDOP and your current status.

FIGURE 3. Sample Satellite Window



As with the Error Ellipse, with a glance you can see the number of satellites and their position relative to the GPS antenna. A great Sky view would show satellites in all four quadrants of the sky. In our example our building was blocking satellites in the lower right-hand quadrant. If you're experiencing problems with reception, this graphical window will show you if it could be due to satellites reception.

To view the window your GPS unit must be outputting the GSV message and you must add the window to the HYPACK® SURVEY display using the Window menu.