

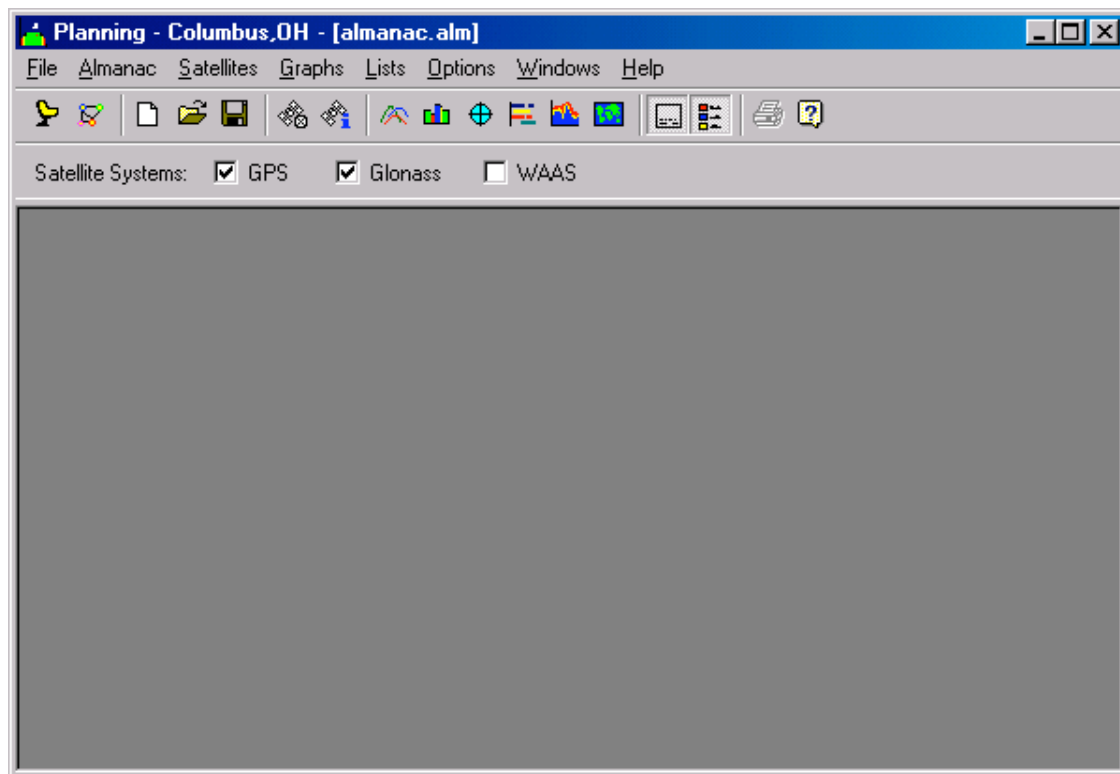
Project One Guidance – Using Trimble Geomatics Office (TGO) for Pre-Planning

Trimble Planning Software is a free download at the following website:

<http://www.trimble.com/planningsoftware.shtml>

The planning software is also embedded in Trimble Geomatics Office.

Start Trimble Geomatics Office by double clicking on the TGO Icon. Click on the Utilities pull-down menu. Click on Planning; you will see the following screen:



If you get a warning that your almanac is out of date (more than 30 days old) go to the section of this document on how to download the current almanac.

Click on the File pull down menu OR the station ICON directly under the File pull down menu. You will see a pop-up menu. If you know the project's location (Latitude and Longitude) you can enter those coordinates directly. Generally, you will use the City button and scroll to Columbus, Ohio; click on select.

Next you will select the proposed project date (03/13/10) and enter the estimated start time, e.g., 11:00 am (11:00 hours). Select a 4 hour duration and 10 minute interval. Click on Okay to close the window.

Station Editor

Station Name: Columbus,OH

Position

Latitude: N 39 ° 57 ' .

Longitude: W 83 ° 0 ' .

Height: 0 [m]

Elevation Cutoff: 10 °

Time

Start Date: 1/23/2009 ..

Start Time: 11:00

Duration: 4 [h]

Interval: 10 [min]

Time Zone: Eastern Standard Time

DST Difference GMT: -4.0 [h]

OK

Cancel

Apply

Delete

Obstacles...

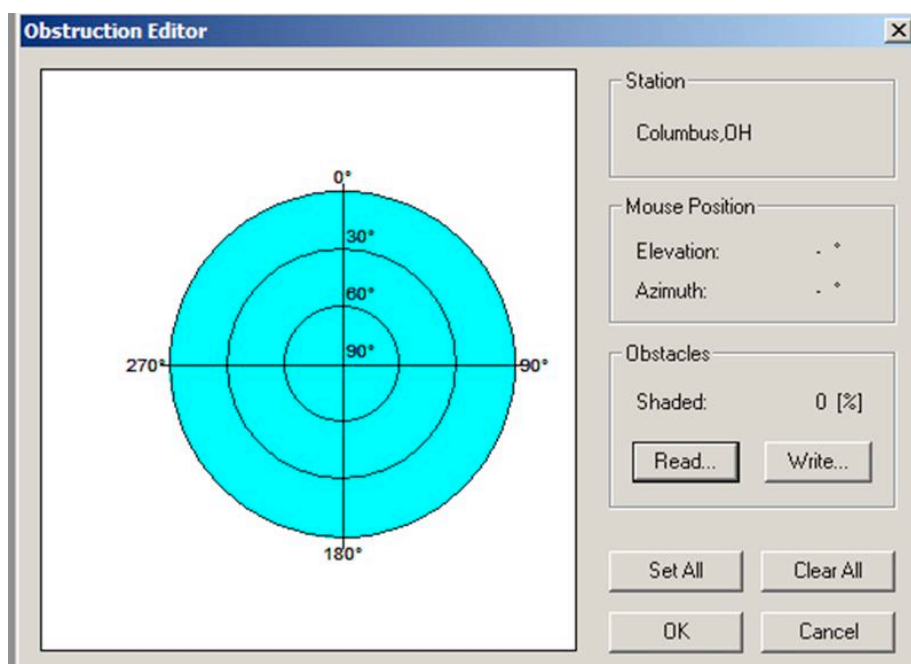
Map...

City...

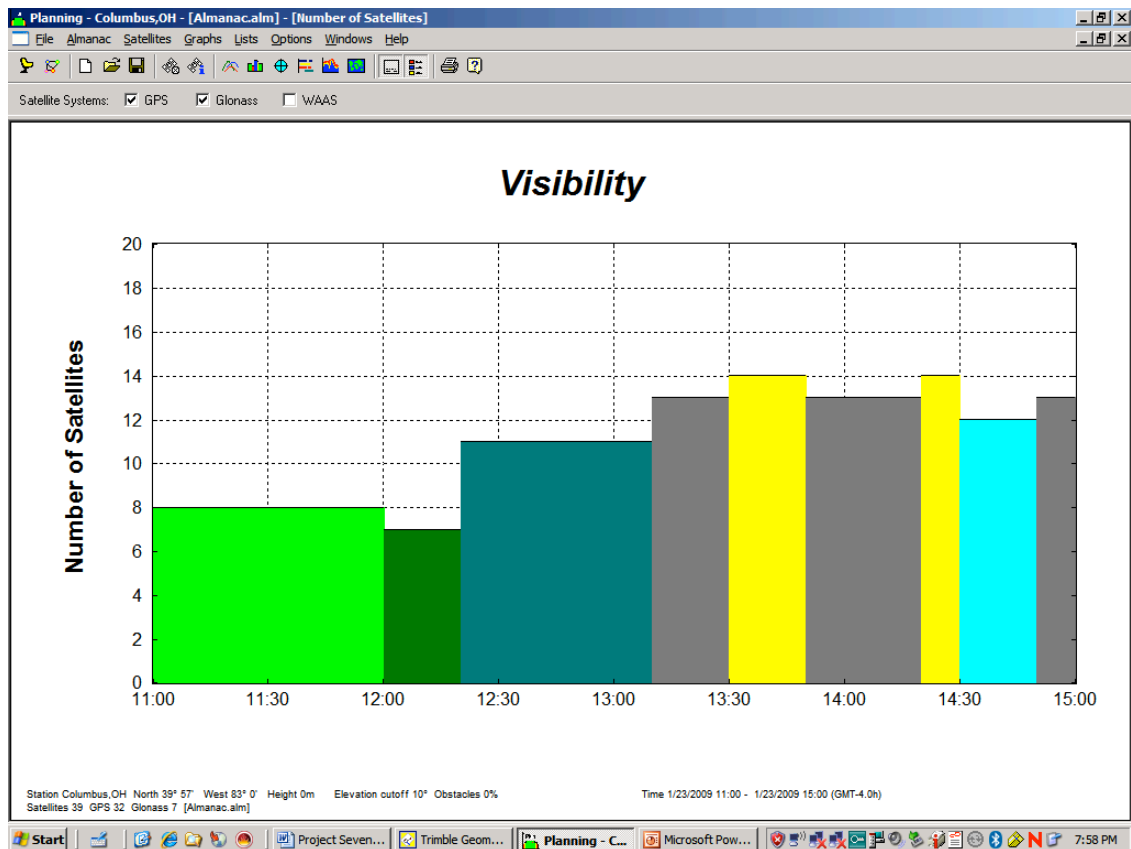
Today

Time Zone...

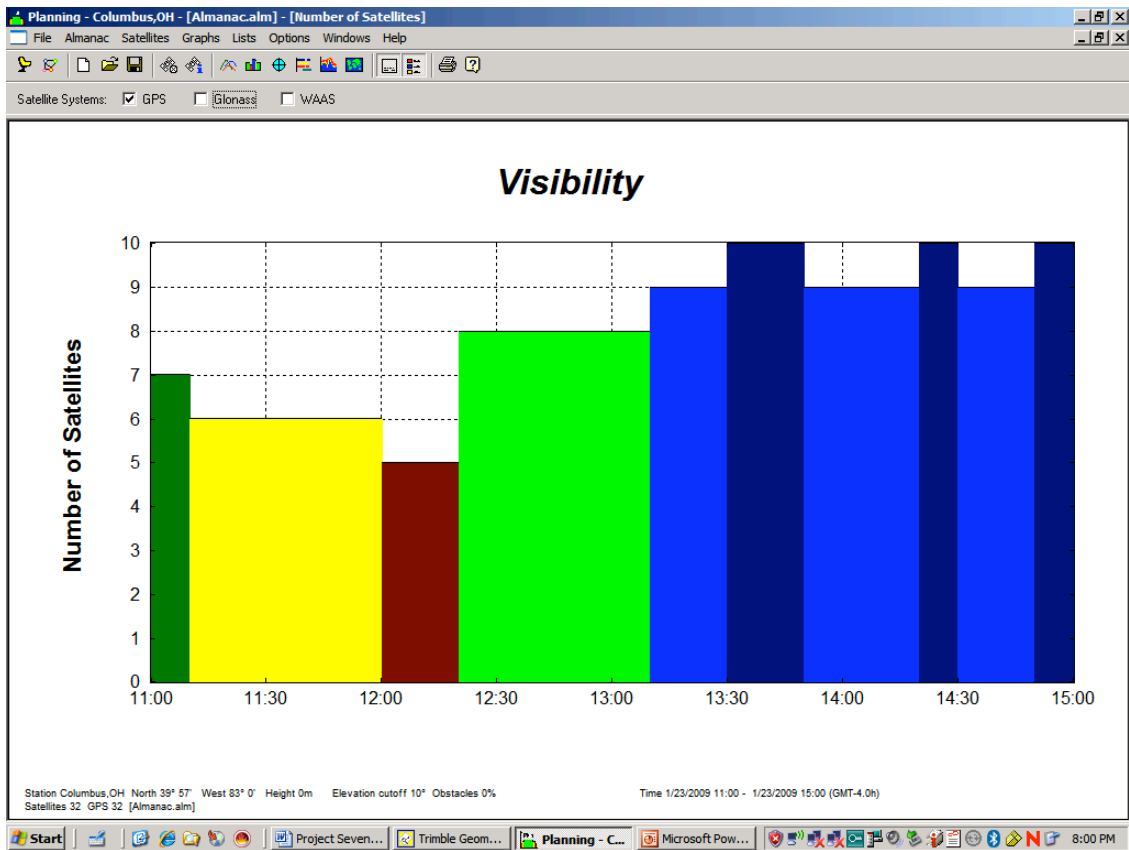
Pre-planning also involves visiting each of the points to be occupied during the GPS sessions. Obstacle location (by azimuth) and height (expressed in vertical angle) is noted. These obstacles can be plotted on the sky-plot and their effect on the number of visible satellites can be noted. Click on Obstacles and experiment with the sky-plot. For now we will assume that there are no obstacles at any of the GPS locations.



Click Clear and click Okay to exit this window. Click on the Graphs pull down menu and click on satellites; you will get the following graph:

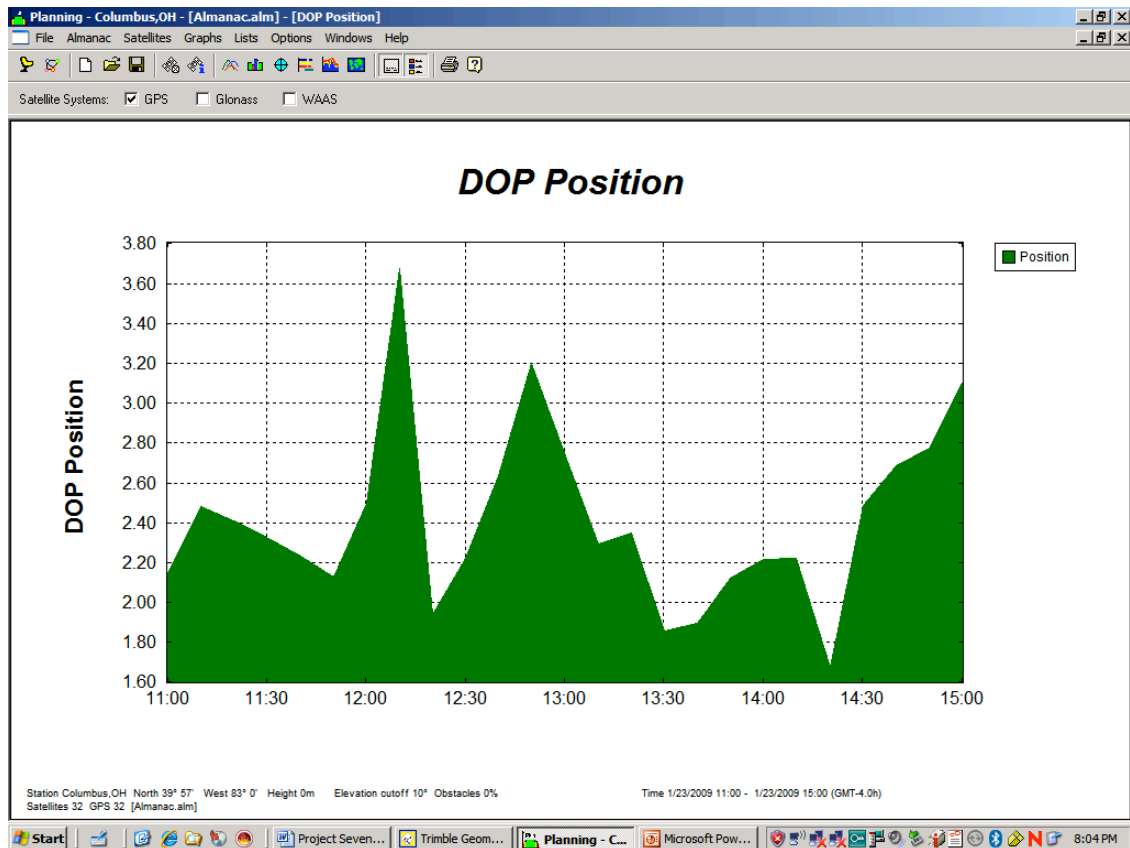


Click on the check on Glonass to remove the check if your receiver does not observe Glonass satellites.



You can print this graph; then close the graph. Notice variable number of satellites observed during the course of the day.

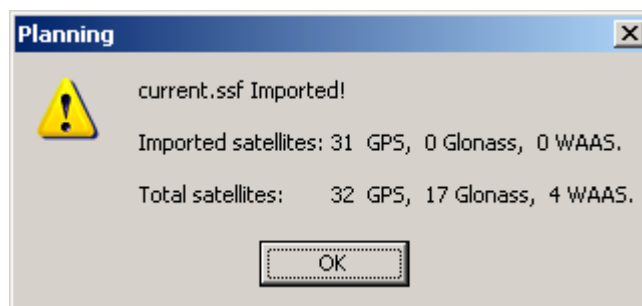
Next, click the Graphs pull down menu and click on DOP. Select DOP – Position; you will see the following graph: Note that there is a spike in the PDOP at Noon or when the number of satellites drops to five. You can also print this graph.



You will note that the PDOP should be less than 6.0 (cutoff) during the entire project.

Current Almanac:

The current almanac is available at <http://www.trimble.com/gpsdataresources.html> under Current Ephemeris Data. The name is current.ssf; you'll want to save it to your local "C-drive", **C/Program Files/Common Files/Trimble/Planning – if you are using TGO**. If you downloaded the Trimble Planner - put the .ssf file in a place where you can find it. Open Trimble Geomatics Office **OR** Trimble Planner and click on the Almanac pull down menu. Click on Import. It will ask for an .ssf file; select the current.ssf file you just downloaded and open it.



Once it is imported, click on OK. Again Click on Almanac and click on save. You will be prompted that an .alm file exists and do you want to replace it. Click YES and Exit the Planner and it will be save as a .alm file. Reopen and your almanac will be current.