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Title: Updating All NGS CORS sites in GNSS Solutions
Date: April 4, 2009
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Thesis: One can easily update all of the CORS sites, coordinates and velocities within GNSS Solutions from the NGS FTP site.

Warnings: When you update the coordinates, you get the **CURRENT** station coordinates. If your job was collected earlier, (say a year or two), then the station coordinates might be different today than they were when you collected the data. (I am not talking about plate shift: the station could have settled or been hit by a dump truck.)

You should get coordinate sheets contemporaneously for your jobs and archive them for future use. And then you should do a reality check when you reprocess.

1. Make sure you are running a recent version of GNSS Solutions.

The current version is 3.10.07.

If you have an earlier version, you can download this version from the Magellan FTP site or my mirror <http://www.magprogps.com/> This is a direct link to a single file download: <http://www.magprogps.com/out3/Land%20Survey/GNSS%20Solutions/3.10.07.zip>

2. Download the current station list using this NGS link:

ftp://www.ngs.noaa.gov/cors/coord/coord_00/itr_f_xyz.txt

Be sure to save the file someplace where you can find it. (Duhh!)

I would add that there are station coordinate files for every CORS site in the same folder.

The format of the file that you download looks like this:

March 15, 2009

ITRF00 Cartesian coordinates for CORS Antenna Reference Point (ARP)

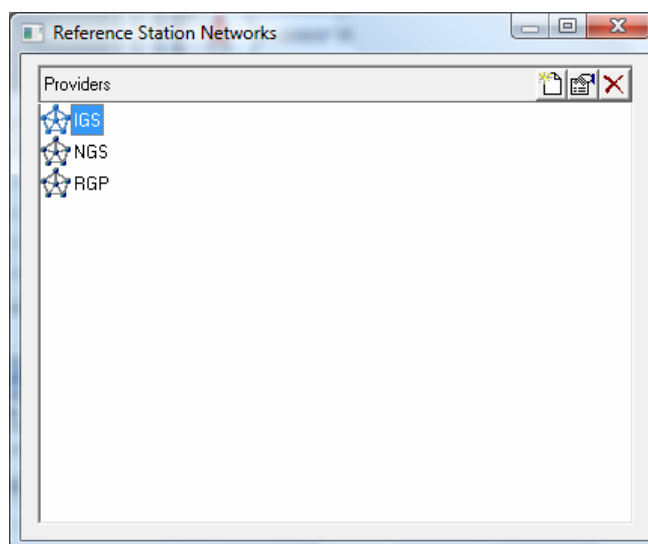
| SITE | EPOCH | x meters | y meters | z meters | Vx mm/yr | Vy mm/yr | Vz mm/yr |
|------|---------|-------------|--------------|-------------|-------------|-------------|-------------|
| 1LSU | 1997.00 | -113402.726 | -5504361.344 | 3209404.212 | -13.9 | -1.3 | -2.1 |
| 1NSU | 1997.00 | -293349.359 | -5420742.335 | 3336980.835 | -14.4 | -1.3 | -2.7 |
| 1ULM | 1997.00 | -194981.924 | -5379221.933 | 3410046.838 | -14.6 | -1.3 | -2.3 |



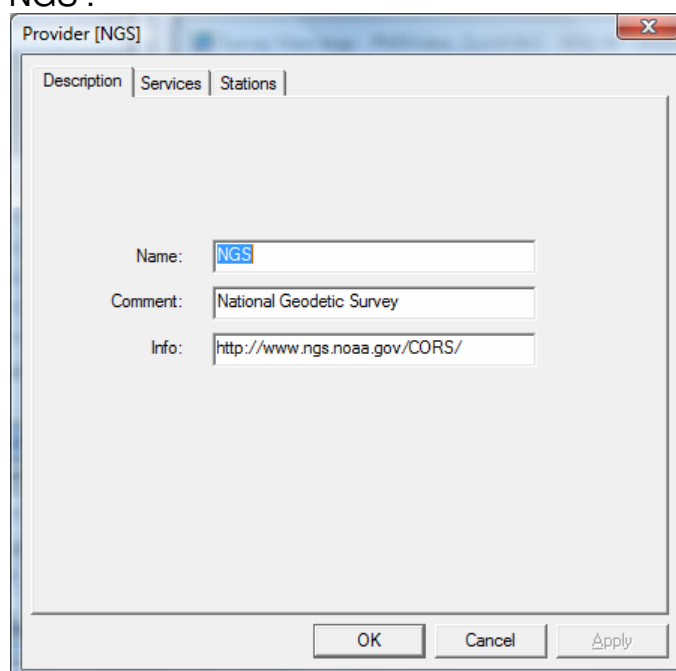
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3. Import the Station List

From the main menu of GNSS Solutions click on “Tools: Reference Station Networks...”:



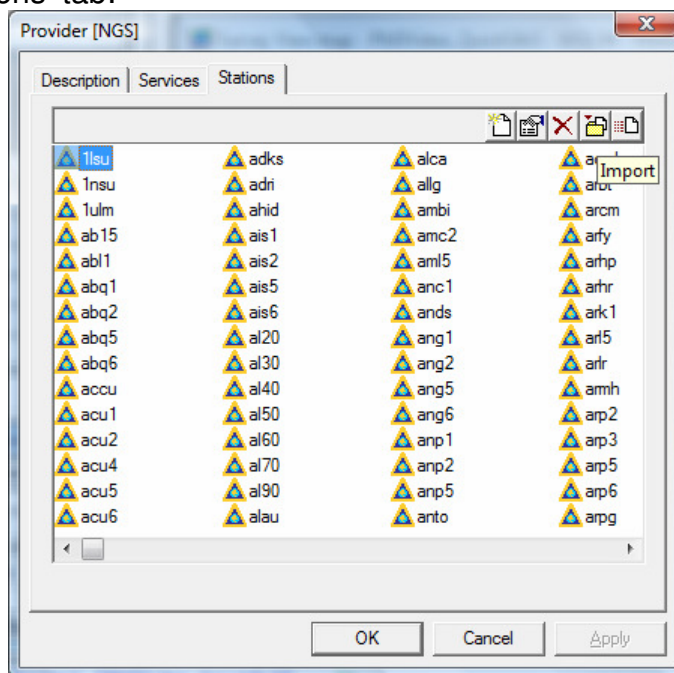
Double-click on ‘NGS’:





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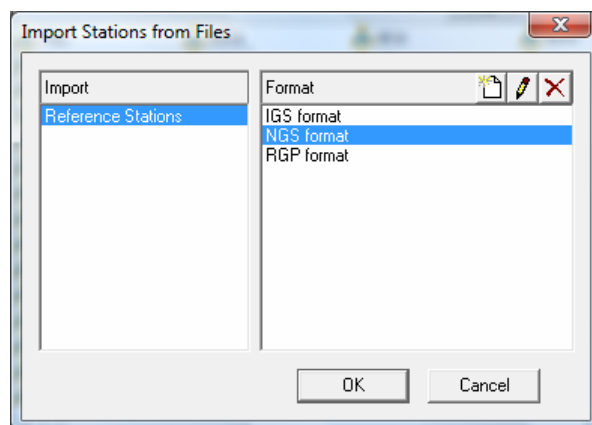
Select the 'Stations' tab:



Click on the Import button in the upper-right corner. The Import button looks like this:



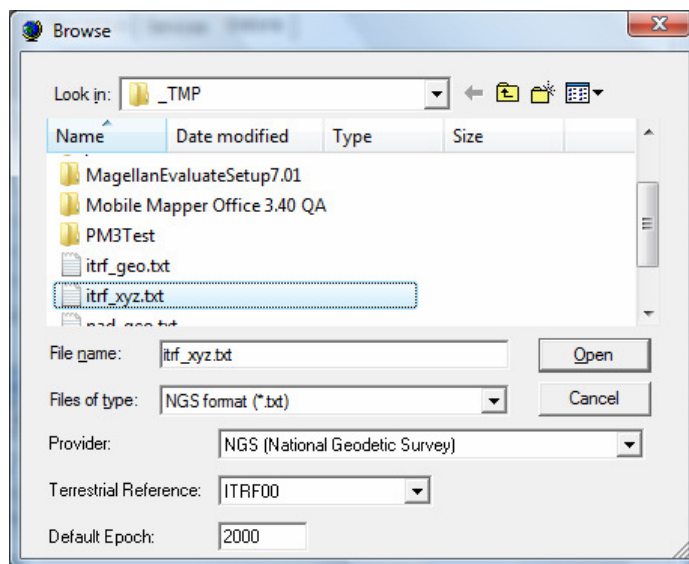
Highlight the NGS line:



then press 'OK':



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Browse for the itrif_xyz.txt file that you just downloaded

(I should note here that the Default Epoch setting does not matter as the input file contains the epoch of the Cartesian coordinates on each line.)

Finally press the 'Open' button.

You are done! GNSS now has all the current CORS stations with the current coordinates and velocities.

Good luck!

Mark Silver