

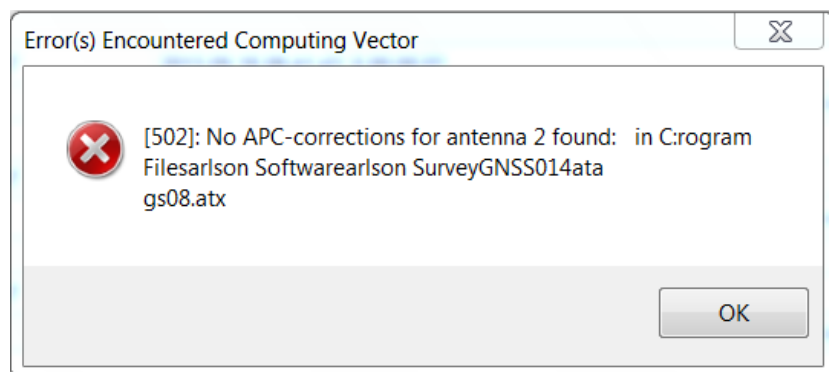
This document contains some answers to common questions in regards to using Carlson SurveyGNSS 2014.

Page 1: Error 502 – no APC corrections

Page 2: No Glonass in the solution

Page 3 & 4: Windows Region and Language Selection

#1) SurveyGNSS: Error 502, no APC corrections found



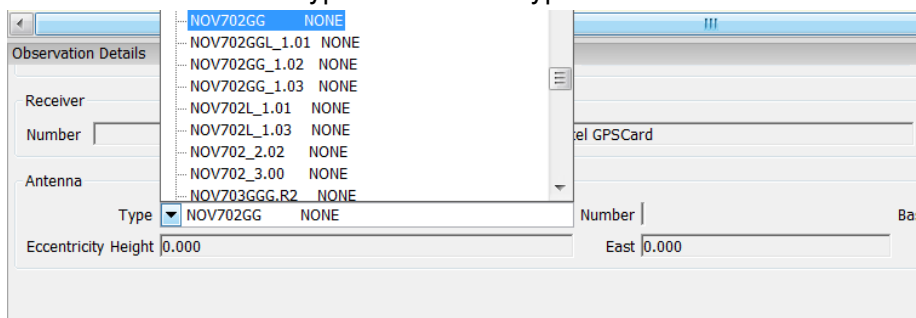
This error indicates that SurveyGNSS cannot identify the antenna type of the base and/or rover. This information was apparently not logged to the raw data file. Without this information the offset to the antenna phase center (ACP) is unknown and this will introduce an offset of possibly several cm's in the elevation of your processed positions.

To solve this you can

- (1) Ignore this offset. This is normally not advisable unless you are only interested in a 2D result. In SurveyGNSS go to **Edit> Preferences...>General** and disable **Antenna Definitions**.

OR

- (2) Add the correct antenna type to the observation file. Select your observation file in the **Observations** view and then select **Edit>Observations Detail**. Scroll down in the Observation Details window to **Antenna Type** and select the antenna type from the list. Note that the antenna type is the same type as SurvCE uses.



Select

the **Save Changes** button and process again.

#2) SurveyGNSS: why is there no Glonass in my solution?

SurveyGNSS will fix ambiguities for both GPS and Glonass satellites when

- (1) Both base and rover have logged Glonass raw data. So if your rover is capable of storing both GPS and Glonass data, but your CORS station only stored GPS then the solution will be GPS only.
- (2) SurveyGNSS knows the receiver type of both base and rover. See explanation below.

When you see this message in the processing transcript on the right side of the SurveyGNSS windows or in the processing TXT file:

WARNING: W002

WARNING: missing or unknown receiver types: no ambiguity fixing for GLONASS observations

then SurveyGNSS does not know the receiver type because this information was not logged to the raw data file. The receiver type is identified by 3 letters:

- NOV for Novatel, includes the Carlson Surveyor+ GPS and Supervisor GPS
- TRI for Trimble
- LEI for Leica
- JAV for Javad
- TPS for Topcon
- SEP for Septentrio
- ASH for Ashtech
- NVS for NVS Technologies, includes the Carlson Mini2 (TBA)
- DF3 for Hemisphere (TBA)

To allow Glonass ambiguities to be fixed, the missing receiver type must be added to the RINEX header. Every imported raw data file is converted by SurveyGNSS into RINEX format which is an ascii file that can easily be edited.

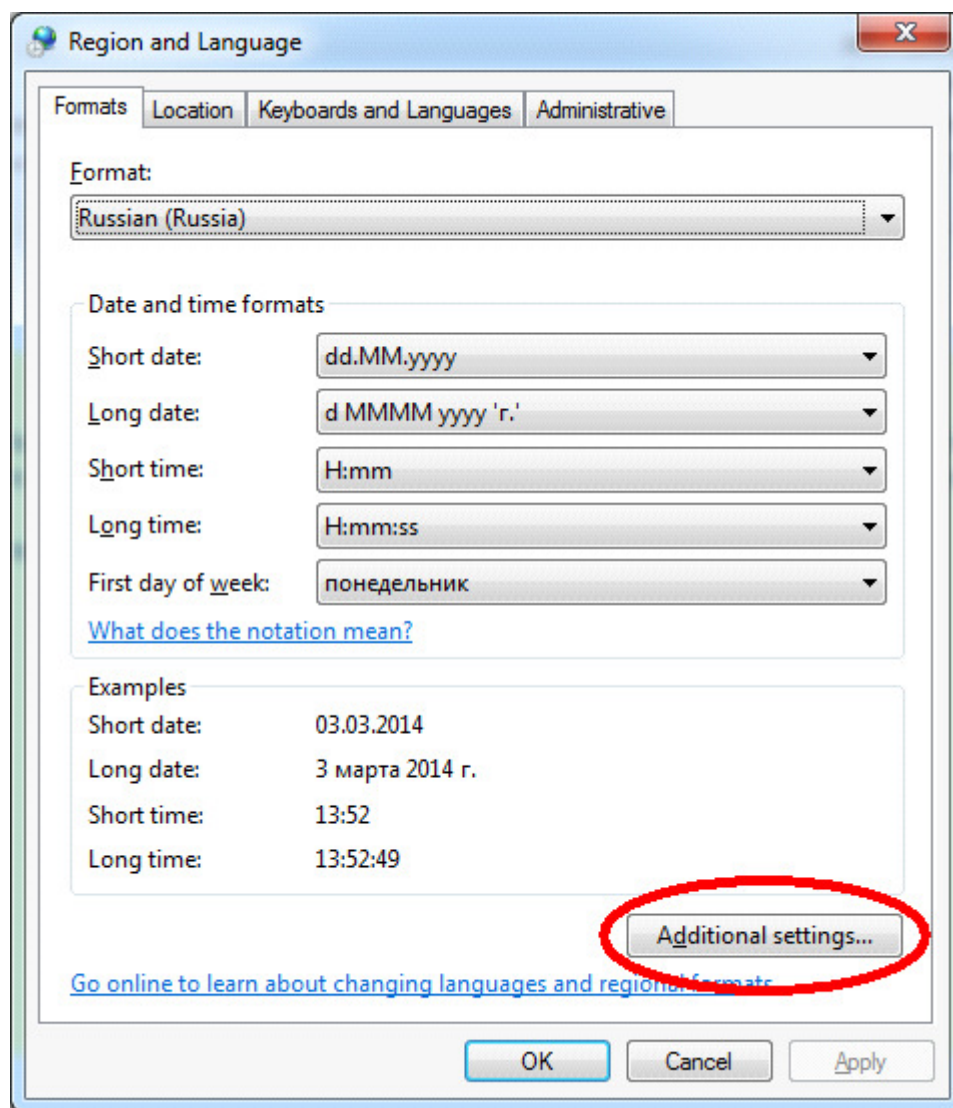
See the example below where SurveyGNSS will read the first 3 letters from 'NovAtel GPSCard' and will be able to process the Glonass using NOV as receiver type.

1802rov		MARKER NAME
1802rov		MARKER NUMBER
1802rov.rw5	Carlson Software	OBSERVER / AGENCY
	NovAtel GPSCard	REC # / TYPE / VERS
	NOV702GG NONE	ANT # / TYPE
3885013.0550	354458.6300 5029089.3890	APPROX POSITION XYZ

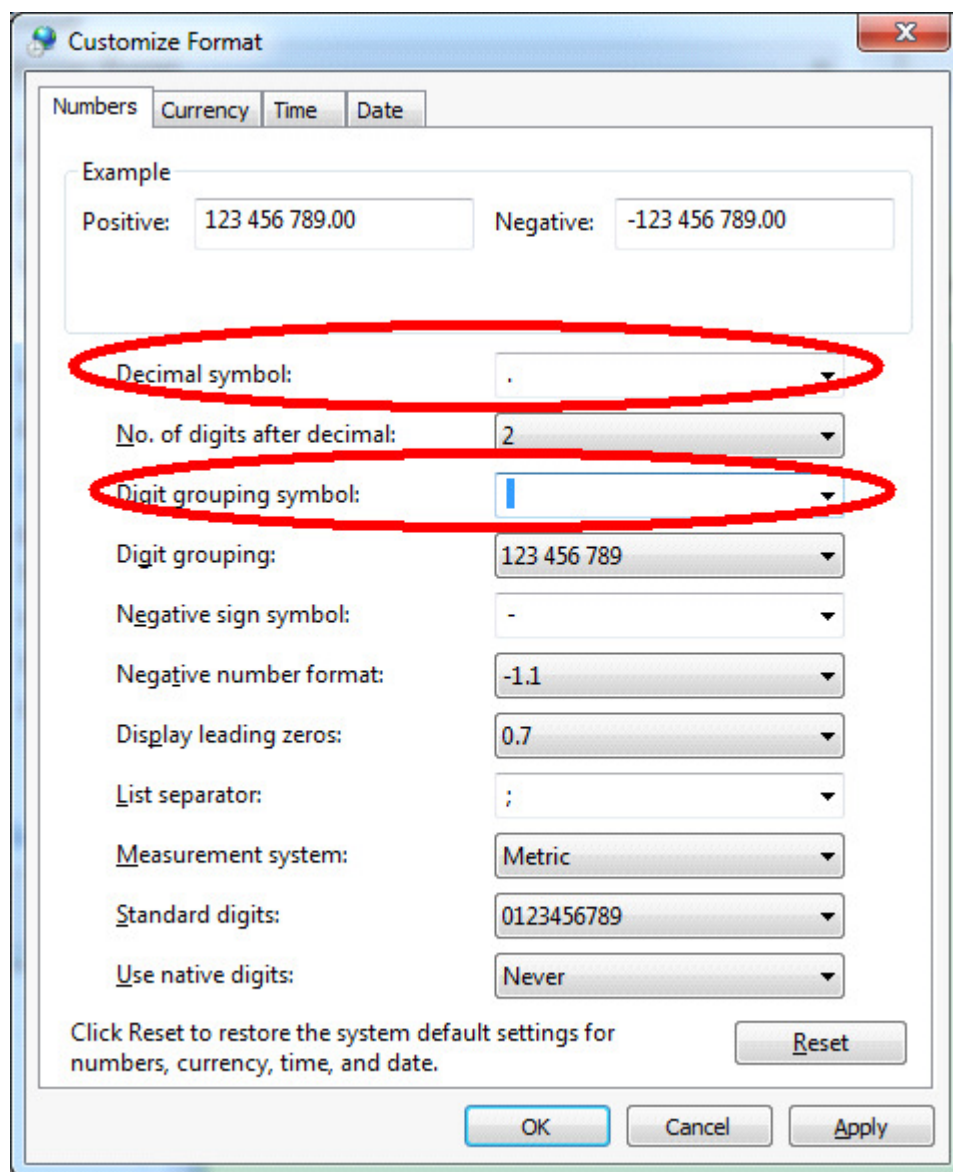
#3) Windows Region and Language Settings

SurveyGNSS uses the point as decimal separator. This is not standard for all countries around the world; in some cases a comma is used as separator. This means that before running SurveyGNSS the user must make changes to the Windows Region and Language settings.

The user can set the Windows Regional and Language settings to any **Format** (in the example below Russian):



However for some default Formats users must modify **Additional settings Decimal symbol** to a decimal point [.] instead of a comma [,] and set the **Digit grouping** symbol to white space (no comma):



Note that when using the SurveyGNSS translation, the Windows language format must be set to the translated language.