

Exercise

Superstation file in VieVS



1. Problem description

A VLBI experiment (NGS file: 13JUN20XV_N004) includes a new station, i.e. the station (VIENNA) does not have coordinates or any other information in the superstation file. Therefore the processing will crash due to lack of a priori station coordinates.

2. Goal

Update the superstation file to be able to analyze the VLBI session using VieVS.

3. Steps

- (a) **Coordinates.** Add station name and coordinates to `viewsTrf` (textfile `viewsTrf` in `VieVS/TRF/ create/ superstation/ neededFiles/`) and to `ns_codes` (which is the 'main-loop' file).
`VIENNA -2388895.4227 5043349.7808 -3078591.4047 -0.0535 0.0164 0.0427 51544 0 99999 1 SomeCoords`
- (b) **Start GUI.** Open the graphical user interface for creating the superstation file: 'Parameters - Reference frames. Create file.'
- (c) Click 'Search for files' button to automatically select proper files
- (d) **Prepare ocean loading.** In order to get ocean tide loading corrections, click on 'Create' button. The desired line of station `VIENNA` appears in the MATLAB command window under '4.1 Writing stations for ocean tide loading'.
- (e) **Ocean tide loading data.** Ocean tide loading coefficients can be determined using the 'ocean tide loading provider' from Chalmers Onsala Space Observatory
<http://holt.oso.chalmers.se/loading/>
- (f) Select model, vertical and horizontal displacements, no correction, no plot, BLQ format and add the station line to the textbox. There must be one empty line before the first station.
- (g) The ocean tide loading coefficients are in `oceanLoading_Vienna.txt` in `VieVS/`.
Add those data to the desired file (`ocean_loading_FES2004.TXT` in `VieVS/TRF/ create/ superstation/ neededFiles/`)
- (h) **Update superstation file.** Click the 'Create' button to create the final superstation file.