



NRT system for GPS tropospheric delay estimation, on-line GPS processing user service and analysis of the results

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This paper describes automatic system for GPS tropospheric delay estimation in the Near Real Time (NRT) developed at the Institute of Geodesy and Geodetic Astronomy of the Warsaw University (WUT) LAC. The system is based on BPE (Bernese Processing Engine) and utilizes UltraRapid orbits and EUREF weekly coordinates. We describe processing strategies used in this application and report various experiences leading to start of NRT tropospheric service. We have made many statistical quality analysis of the resulting solutions. Accurate comparisons with ZTD combined product (EPN and IGS) and radiosounding data has been made. The poster presents also the second research application for the GPS data processing - the Internet based service for an on-line GPS processing of the users data. After submitting RINEX file through webpage you can get solution coordinates of arranged network consisting of permanent stations and your point. The system enables users to submit two frequency GPS data observed in a static mode and obtain precise coordinates (ITRF+ETRF89 within Europe and ITRF elsewhere). System uses IGS and EPN products and data; GPS observations are processed using Bernese GPS Software. Poster shows some results of the computational experiments: performed comparisons of different methods to compute coordinates of the user station (independent baselines vs. network mode) and the influence of geometry of selected IGS/EPN reference stations on the results was also examined.