Geophysical Research Abstracts,
Vol. 11, EGU2009-8933, 2009
EGU General Assembly 2009

EPOS-RT: Software for Real-time GNSS Data Processing

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In order to meet the requirement of the data analysis of the expanding real-time GNSS networks, a newly-designed software package, EPOS-RT, is being developed at GFZ for data analysis of various applications, such as real-time deformation monitoring and providing service for applications based on Precise Point Positioning (PPP).

The software package is introduced briefly. The estimation approach and on-line real-time quality control and key issues like ambiguity-fixing, ionospheric correction for single-frequency data are discussed in details.

We present the results of a regional network for real-time deformation monitoring, the results of a global network for satellite clock estimation and real-time PPP using the estimated clocks. The combined GPS/GLONASS/GALILEO solution is performed to demonstrate its ability of handling data from the multi-systems. Data processing of single frequency receivers and data quality of real-time streams are also investigated.