Using GNSS data in real-time for geodetic applications

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Using real-time GNSS data streams as available through EUREF and IGS resources enable new positioning applications. Among them are the estimation of satellite and receiver clock corrections and coordinate estimations via Precise Point Positioning (PPP).

Precise GNSS satellite clocks are a necessary input for the PPP technique. Consequently, for real-time PPP clock corrections have to be estimated and transmitted to the user also in real-time.

This presentation of real-time satellite clock corrections and PPP results is based on the soft-ware package RTNet by GPS-Solutions Inc. RTNet can be applied in real-time mode using streams coming in via NTRIP as well as in post-processing mode using RINEX files. Coordi-nates can be estimated with or without ambiguity fixing.

Following an update of recent developments in EUREF and IGS concerning real-time GNSS, applications and results for real-time PPP are presented. Special concern is given to GLONASS clock corrections.