Reprocessing of a global GPS network - Experiences and results from a joint project at TU Dresden and TU Munich

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A reprocessing of a global GPS network has been carried out at the Universities of Technology in Dresden and Munich. Up to now almost 12 years of data have been processed in a joint effort. The major benefit from a reprocessing of all observation data can be seen in the opportunity to apply the latest models and processing strategies in the data analysis in order to obtain homogeneous and consistent parameter time series.

In this context we introduce the implemented data processing scheme. The incorporated strategy and model refinements (e.g., the isobaric mapping function based on weather model data and the application of 2nd- and 3rd-order ionospheric corrections) as well as their benefits are pointed out. In addition we present results for different parameter types with a focus on coordinate time series in order to demonstrate the homogeneity of the reprocessed solution.