A software module for quality control of CEGRN sites

E. Schoenemann, M. Becker

Institute of Physical Geodesy, Darmstadt University of Technology, Darmstadt, Germany

To reach the best achievable quality for GPS measurements on permanent stations a monitoring of atmospheric influences as well as near surrounding effects is mandatory. Up to now, there are different free and commercial software packages for checking the station quality, as for example TEQC (UNAVCO) and QC (LEICA). Most of these tools have restrictions as for example: no automated processing, alarming functions or no portability to other operating systems. A dedicated software was developed using C++ libraries available for the most common operating systems. The software is organized in two parts, the graphical user interface and the processing unit. The processing unit is responsible for all computations and can be controlled by scripts for automatic and continuous processing. All processing logs and QC-results, e.g. Code-MP, SNR, cycle slips etc. are stored in ASCII files, which can be checked by scripts in order to generate alarms. The user interface which visualises the QC-results was developed independently. So it is also possible to import other ASCII files in UNAVCO COMPACT format.