

## Versatile Processing Program for RINEX Files

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**Abstract.** In the field of geodesy, Receiver Independent Exchange Format (RINEX) is a data interchange format for raw satellite navigation system data. However, not all RINEX files can be used directly in the network adjustment step due to errors in the form of the RINEX file caused by mistakes of the users or due to poor quality of the measurement data recorded inside the RINEX file caused by poor measurement conditions. Therefore, this research starts with a detailed comparison and analysis of the most used 2.0 and 3.0 versions of the RINEX file and then uses the Python programming language to design a versatile handler for RINEX files to solve this problem. The program includes functions for processing the header section of large RINEX files and for data quality control of the data recorded in the files, and also comes with a GIS module for visualizing RINEX files.