

Bernese GNSS Software

The Bernese GNSS Software established a tradition as a high performance, high accuracy, and highly flexible reference multi-GNSS (currently GPS, GLONASS, Galileo, BeiDou, and QZSS) post-processing package. State-of-the-art modeling, detailed control over all relevant processing options, powerful tools for automatization, the adherence to up-to-date, internationally adopted standards, and the inherent flexibility due to a highly modular design are characteristics of the Bernese GNSS Software.

Features and Highlights

- Available on UNIX/Linux, Mac, and Windows platforms
- **User-friendly GUI**
- Built-in HTML-based **help system**
- Multi-session parallel processing for **reprocessing** activities
- **Ready-to-use BPE** examples for different applications:
 - PPP (Precise Point Positioning)
 - RINEX-to-SINEX (double-difference network processing)
 - Clock determination (zero-difference network processing)
 - Ionosphere model determination
 - LEO precise orbit determination based on GPS-data
 - SLR validation of GNSS or LEO orbits

All examples are designed for **combined multi-GNSS** processing. Some of them are prepared for an **hourly processing scheme**.

- Program for automated coordinate **time series analysis** (FODITS)
- **Ambiguity resolution** also for PPP
- Extended orbit modelling capability for GNSS and LEO satellites
- **Multi-GNSS processing support** advanced observation-type specific bias handling based on RINEX3/4 specifications
- GNSS- and frequency-specific receiver and satellite antenna models
- Compliance with latest **IERS and IGS conventions**
- Real kinematic analysis capability

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