



GNSS Receiver Independent Post-Processing and Network Adjustment Software

Benefits

Less local base station reliance through base station downloads and PPP processing

Improved accuracy over real time through forward/reverse processing

Compatibility with multiple receiver manufacturers for maximum flexibility

Features

Static and kinematic processing

Centimetre-level position accuracy with robust quality indicators

Multiple base station and PPP processing support

Support for GPS L1/L2/L2C and GLONASS

Enhanced GNSS Accuracy through Post-Processing

GNSS technology is used to compute position and velocity for a variety of real-time applications, including vehicle navigation and tracking. The real-time accuracy of GNSS however, is limited by real-time transmission of correction data. Further, in many applications where absolute position accuracy is critical, the position information is not required in real-time. For these applications, the accuracy of the GNSS position solution can be greatly improved by post-processing. In post-processing applications, the raw GNSS data is collected and stored for use after the mission. Post-processing software takes advantage of features like local base station differential processing, processing forwards and reverse in time, and application of precise satellite clock and orbit information, in order to generate a much more accurate solution than is possible in real time.

Why GrafNav/GrafNet?

GrafNav/GrafNet post-processing software from NovAtel's Waypoint® Products Group is a powerful and highly-configurable processing engine that allows for the best possible GNSS accuracy using all available GNSS data. Support of receiver formats from multiple manufacturers means that GrafNav/GrafNet will likely work with your existing hardware. The software also has multiple quality control features built in so that the quality of the solution is never in question. The base station download utility allows access to thousands of publicly available, continuously operating reference stations and Precise Point Positioning (PPP) means that for many applications, no base station is required at all.

Flexibility for Unique Applications

GrafNav/GrafNet is available as a stand-alone application for individual or batch processing of data files. For customers that want to customize their own workflow or automate their processing, the software is also available in DLL form for integration into a user's own application.

If you require more information about our software, visit novatel.com/products/waypoint_pps.htm



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GrafNav

- Static/Kinematic trajectory processing software
- Multiple base processing for up to eight base stations
- AdVance® RTK carrier phase positioning for improved performance on long baselines and in difficult conditions¹
- Long-range dual frequency ionospheric processing
- Advanced tropospheric state for long distance data sets²
- Forward, reverse and combined data processing options
- Simultaneous forward and reverse processing on dual-core and xeon machines
- GPS+GLONASS data processing that supports both fixed and float integer ambiguities
- Precise Point Positioning (PPP) module
- Multi-pass PPP processing option resulting in significant accuracy improvement, especially for shorter duration data sets²
- Precise ephemeris and clock (needed for PPP) can be automatically downloaded as soon as the next GMT day
- Visual Quality Control via extensive plotting capabilities
- Choose from popular datums and map projections or customize your own
- Powerful export tool to build user defined output or to reproduce most ASCII formats

- Settings and results are automatically saved for every processing run
- Interpolation of coordinates for station markers and camera events
- Full geoid support for the US, Canada, Japan, Australia, Mexico, France, UK, Ireland and more. Other geoids can easily be imported.
- Export directly to Google Earth and HTML²
- GPS and GLONASS mission planner that downloads almanac files automatically

GrafNav Batch

Can be used to batch process multiple remotes or combine individual trajectories from multiple base stations. Support for up to 128 bases or remotes.

Datalogger

A real-time logger is included for Windows and WinCE. It permits users to log Waypoint or receiver native formats, while stations can also be marked and logged.

GrafNet

- Static network processing
- Data Manager for easy project manipulation
- Accurate fixed static solutions and long-range iono-free processing
- Included network adjustment
- Trivial baseline removal
- Manual and automatic loop closure computation
- Quality control plots for individual baselines
- Final results exported in a similar manner to GrafNav
- Full support for combined scale factor

Additional Features

Utilities

- IGS, CORS, IGN, GSI, ARGN, CDDIS, OLG, BKG1, UNAVCO, PositionNZ and ASI GPS data services can be downloaded and resampled from the internet
- Raw GPS data can be resampled, concatenated and spliced
- Raw data can be converted to RINEX
- Local datums/coordinate systems transformation

Supported Formats

- Hemisphere DGPS Max
- Javad GRIL
- Leica MX/SR/System 500/System 1200/MC1000
- Magellan CAR/MOB
- Magellan RT/B-File/DSNP
- NAVCOM OEM
- NovAtel OEM2/OEM3/OEM4/OEMV/CMC
- RINEX 2.0/2.1
- Septentrio SBF
- Sirf Star II
- Trimble DAT/RT/TSIP/TIPY
- U-Blox Antaris

Upgrade/Support

Any versions available within one year from purchasing will be made available at no charge. Technical support by phone and e-mail is also free for one year after date of purchase.



Version 3 - Specifications subject to change without notice.

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For the most recent details of this product:

novatel.com/Documents/Waypoint/GrafNavGrafNet.pdf

¹ Quoted accuracy assumes minimal loss of lock, good satellite geometry, dual frequency data.

² New for version 8.10.

