



GRAFNAV/GRAFNET™ VERSION HISTORY

What is new with Version 8.40.1214?

Available: January 2012 [update]

Bug Fixes:

- Fixed issue in GrafNet where printing was disabled
- Improved PPP performance in challenging conditions
- *Master Coordinates* window now displays average values when coordinates in STA file are zero
- Improved profile-detection in pre-processing checks
- Fixed issue in RINEX decoder concerning Version 3.00 navigation files

What was new with Version 8.40.1108?

Available: November 2011 [release]

New Features:

- *Waypoint Updates* feature will notify customers of new software updates and patches and will download them
- *Waypoint News* feature will keep customers up-to-date regarding Waypoint software releases, training seminars, and other important announcements
- GLONASS data is now supported in the Precise Point Positioning (PPP) module
- GLONASS base station data can now be resampled
- GLONASS data can now be used in the ARTK engine to improve single frequency performance
- ARTK reliability has been improved in challenging conditions by implementing a stricter acceptance criteria
- New profile selection feature will attempt to automatically determine your application in order to select the most appropriate processing profile
- Improved ARTK performance for multi-base projects that have different start or end times for each base station
- Added option to limit the distance at which dual frequency ARTK will engage
- *Export Wizard* can now filter output based on Quality Number and/or standard deviations
- New “Combined Separation with Fixed Ambiguity” plot shows forward/reverse separations only where both solutions are fixed. This helps identify problem areas/incorrect ambiguity resolution.
- Precise ephemeris and clock files are now automatically downloaded when clicking the “Process” button for Precise Point Processing (PPP). It is no longer necessary to download the files as a separate step prior to processing.
- Added option to only accept ARTK fixes from closest baseline (for multi-base projects)
- Cache memory setting has been implemented for more efficient handling of very long and/or high rate projects
- Issue where datum conversions were not always reversible has been fixed
- ECEF coordinates can now be used when entering base station coordinates
- Units can now be changed on many plots
- Orthometric heights are now computed using a Lagrange interpolation instead of a nine-point polynomial
- The “User” and “Description” fields in the processing dialogs can be modified and will be saved to the *Processing History*
- Improved message filtering ensures only the most important error and warning messages are output to the processing window

- HTML reports output by software now work in Google Chrome

GrafMov:

- Support for ARTK has been added to provide ambiguity resolution that is faster and more accurate than KAR, while also working more reliably on longer baselines
- Users are no longer prompted for precise coordinates when adding a base station

GrafNet:

- Default processing interval has been changed to 30 seconds to help avoid processing static data at a high rate, which can produce overly optimistic standard deviations
- When using the *Export Wizard* after performing a network adjustment, “Network” will be automatically selected as the “Source”

Raw GNSS Data Converter:

- Pre-processing checks are now performed during data decoding to automatically solve common conversion issues and set the static/kinematic flag
- RINEX Version 3.0 is now supported
- NovAtel decoder now supports SITEDEFB logs. This ensures your static sessions are preserved and that an event is written to the STA file.
- Leica System 1200 decoder now supports the Antenna Record (ID #108)
- Javad decoder now supports L2C records
- Trimble Real-Time decoder now supports dual frequency measurements for the expanded logs
- Bug where Septentrio decoder was flagging GLONASS observations as containing L2C measurements has been fixed. Multi-antenna decoding has also been improved.
- Default L2C offset for RINEX decoder has been set to zero in order to accommodate downloaded data from Trimble base stations, which commonly have the offset removed

Download Service Data Utility:

- Users can now download broadcast GPS and GLONASS orbits in EPP format. This is useful for projects with missing or incomplete ephemeris data.
- New option added to download precise GLONASS orbits and clock products for PPP
- Added support for rapid precise clock and orbit service (SGU). This service typically has products available at a latency of 4 to 6 hours.
- The maximum number of days for which data can be downloaded been increased to seven
- Support has been added for the ERGNSS, ITACyL, CATNET and BARD reference networks

What was new with Version 8.30.2105?

Available: January 2011 [update]

New Feature:

- Manufacturer file has been updated with new GPS almanac source for Mission Planner. Previous source is no longer available.

Bug Fixes:

- Fixed issue with RIN2GPB where data collected in 2011 would not convert

What was new with Version 8.30.1123?

Available: November 2010 [update]

New Feature:

- GrafNav Lite now supports single frequency GLONASS data

Bug Fixes:

- Automated detection of Doppler units in SYS12002GPB
- Improved support for L2C measurements in Download.exe and Gpbcats.exe
- RIN2GPB now computes valid Doppler measurements for RINEX files where D1 data is zeroed
- Improved ability to modify one/multiple/all features in *Feature Editor*
- Improved handling of antenna heights in GrafMov

What was new with Version 8.30.1007?

Available: October 2010 [update]

Bug Fixes:

- Improved data handling within ARTK when used in multi-base mode with invalid baselines
- Code-only single point processor now works without precise orbit files
- RIN2GPB now handles epochs containing more than two lines of PRNs
- Fixed bug in JPS2GPB where GLONASS satellites were being assigned wrong PRN in the absence of ephemeris data. Also, decoder now handles ephemeris records of multiple sizes.
- Fixed bug in static processor where covariance matrix would become contaminated during satellite outlier detection
- Improved handling of epochs without valid ephemeris data in fixed static processor

What was new with Version 8.30.0623?

Available: June 2010 [update]

Bug Fixes:

- Fixed bug where GrafMov would use ARTK instead of KAR when loading a processing profile
- Fixed bug in GrafMov where ionospheric corrections were always being applied
- *Copy User Files* has been updated to properly transfer user files from previous installations
- RIN2GPB now supports RINEX data with epochs containing more than 24 satellites

What was new with Version 8.30.0331?

Available: April 2010 [release]

New Features:

- Processing settings have been simplified and the GUI has been made more intuitive
- New version of AdVance™ RTK (ARTK) offers improved carrier phase ambiguity resolution, particularly for single frequency data
- Fixed static processor now supports L2C measurements
- Precise point positioning (PPP) filter has been improved
- Improved support for GLONASS processing when mixing receiver types
- Processing profiles have been improved
- Ionospheric corrections automatically enabled/disabled depending on baseline distance
- Software will warn users who attempt to proceed with averaged coordinates at base station(s)

Bug Fixes:

- Fixed bug in RIN2GPB converter where GLONASS phase measurements would occasionally be flagged as L2C
- Fixed bug in “Move-to-Static” option where features would be deleted
- ARTK fixes now displayed properly on *Map Window* when forward solutions is loaded
- ECEF covariance information for PPP positions now available through *Export Wizard*
- Fixed bug where antenna heights were being rounded to nearest centimeter
- Fixed bug in *Signal Strength* plot when re-scaling Y-axis

What was new with Version 8.20.0522?

Available: May 2009 [update]

Bug Fixes:

- RIN2GPB.DLL was not loading on some computers, leading to problems with the *Raw GNSS to GPB* and *Download Service Data* utilities. This issue has been resolved.
- Problem where *Export Wizard* would not output in any grid except UTM is now resolved
- Support for compressed RINEX format has been updated to incorporate newest changes to format
- Fixed issues surrounding the launching of baselines from GrafNet or GrafNav Batch into GrafNav

What was new with Version 8.20.0427?

Available: April 2009 [release]

New Features:

- The new *Project Wizard* allows users to easily step through the process of creating a new project.
- The *Wizard* automatically detects the user's raw data types, converts them to GPB and, if requested, downloads nearby service station data.
- EGM2008 geoid now available in WPG format
- New *Trajectory Status* plot is available for NovAtel users logging position records

Improvements:

- Handling of manufacturer/user files has been modified to better support Windows VISTA users
- *Download Service Utility* now loads much quicker than previously
- Improved satellite rejection and base satellite selection in differential processor
- Improved handling of satellite antenna offset in PPP processor
- Users can now easily add their static PPP solution to *Favourites*
- The *Map Window* and all data plots use new drawing method that provides much better support for high-rate and/or long data sets

Decoders:

- NovAtel OEMV users can create GrafNav-readable trajectory files from 7 different position records
- NovAtel OEM4/OEMV decoder now supports MARK n TIMEB and MARK n PVAB records
- For Leica 1200 receivers, support has been added for the new measurement record (#119)
- Support for the RTCMV3 raw data format has been added
- Improved handling of GLONASS data in GPB2RIN.DLL
- RIN2GPB.DLL now handles L2C data properly

Bug Fixes:

- Fixed bug where *Select From Favorites* would not work if master GPB file did not contain position