WAYPOINT
PRODUCTS GROUP

Unique Tool Determines Accurate, Real-Time Trajectory in Precision Applications

Benefits

Real time trajectory determination

Reduced system cost

Compatibility with multiple receiver manufacturers for maximum flexibility

Reliable integer ambiguity resolution

Features

Up to 20 roving units

Absolute or relative precision positioning

Azimuth determination

Network and serial data communications for remote control and data logging

GPS and GLONASS capability

Multi-Receiver Position

RTKNav provides real-time simultaneous location of up to 20 roving units. Relative positioning and azimuth determination between moving antennas is also supported. Multi-Engine, included with RTKNav, is designed for continuously operating applications. It has the same basic functionality as RTKNav but without the graphical interface.

Flexible Data Communications

RTKNav has full support for serial, network TCP, UDP or multicast connections. GPS+ GLONASS data can be transmitted to the RTKNav processing site via a number of telemetry options. Output position can be transmitted from the processing site via any of these telemetry methods, and to localized command ports, permitting full remote control. GPS data can also be re-broadcast for use by other applications on the network.

Special Application Support

Integrators can use the optional developers kit to directly interface RTKNav's processing engine (RtDLL) and serial/network communications (SIOGPS) in custom applications.

RTKNav

- Easy to use windows interface
- Receiver status indicators
- Mapping screens with trajectories for each remote
- Text screens for coordinate and quality information per remote
- Up to 20 remotes
- Azimuth determination
- GPS data transmission via serial or network (TCP, UDP or MULTICAST)
- Output saved to file and/or transmitted via serial or network communications
- Post-processing in playback mode (forward only)
- GPS raw data either logged or re-transmitted to another location for re-processing
- Custom configuration for most GPS receivers with user commands
- Command port for remote configuration, assessment and record requests
- Full waypoint navigation
- Centimetre-level accuracies via carrier phase processing using AdVance® RTK
- Robust double difference Kalman filter for GPS processing
- Single and dual frequency processing
- Long baseline processing supported via ionospheric free observable
- Base station data extrapolated for forward RTK applications.
- Static, kinematic and mixed processing

Multi-Engine

Multi-Engine is a variant of RTKNav without the graphical plotting capabilities and is better suited to continuously operating conditions. Due to its scalable design, it is easy to increase the number of remotes, for example in vehicle tracking applications.

Developer's Kit

The Development Kit includes header files and sample code necessary for experienced c/c++developers to embed the RTK processing engine into their custom applications. The Development Kit represents a one-time cost to the user and may only be employed in conjunction with an RTKNav license.

Solution Output

ASCII output records can be saved to disk, broadcast to one or more network ports or sent to a serial port to other applications requiring this data. Command ports can also receive data records or special instructions such as position or filter resets.

Output records include:
- NMEA (GPGGA, GPVTG, GPAVL)
- Waypoint® (13 record types)
- FUGAWI (PFUGTAR)
- Various custom records

Additional Features

Utilities
- GPS data logger
- Raw data can be converted to RINEX
- Raw data viewer

Supported Receivers
- NovAtel (OEM6™, OEMV®, OEM4, OEM3, OEM2 and CMC)
- Magellan (G12, G12MACM, AC12, DG16, DG16MACM, Z12, z12DBEN, ADU5, and MACM GSUI)
- CSI SLX
- Javad (GRIL)
- NavCom NCT
- RTCM3
- Trimble (4xxx and 5xxx)
- U-Blox Antaris

Upgrade/Support

Any new versions available within one year from date of purchase will be free. Technical support by phone and e-mail is also free for one year after date of purchase.

Modules and Options

RT-R1–a single remote version which does not support moving baseline processing

RT-MV–a single remote moving baseline version

RT-AZ–to compute azimuth-only to a maximum 20 m baseline length

RT-R3–a 3 remote version that supports fixed and moving bases

RT-R6–a 6 remote version that supports fixed and moving bases

RT-R20–a 20 remote version that supports fixed and moving bases

RT-DEV–a developers kit for users to access the DLLs

ISO 9001:2000
FM 92323