



EASY-TO-USE GPS DATA PROCESSING SOFTWARE

Ashtech Solutions

GPS DATA PROCESSING MADE EASY

Ashtech Solutions™ from Thales Navigation Professional Products is a comprehensive software package containing all of the tools required to successfully process GPS and GPS+GLONASS survey data. Ashtech Solutions takes full advantage of the Windows operating system with a focus on simplicity as the user is guided through planning, processing, quality control, reporting and data exporting.

Data and processing results are presented in an intuitive, easy to understand manner. Ashtech Solutions offers the tools you've grown accustomed to seeing in a full-featured post-processing package without the usual complexity. The innovative approach to presenting survey data in graphical and tabular form makes processing, adjusting, analyzing, and exporting GPS and GPS+GLONASS data a simple, intuitive, and enjoyable experience. If assistance is required, a well-defined user's manual and comprehensive online help system are at your fingertips. Data processing could not be easier.

ACCURACY AND RELIABILITY

Ashtech Solutions from Thales Navigation includes advanced blunder detection and quality analysis tools to ensure accurate and reliable solutions. Since many of these tools are commonly used by surveyors, producing quality surveys with Ashtech Solutions is intuitive and easy. Blunder detection and quality analysis tools such as loop closures, automatic repeat observation analysis, automatic control analysis, and least-squares adjustments are integral components of Ashtech Solutions. To assist in qualifying your survey, Ashtech Solutions includes the ability to automatically determine the accuracy level attained by your



survey based on NGS relative accuracy specifications. Designed to meet the needs of all surveyors, Ashtech Solutions supports processing of data from all Ashtech survey systems offered to date. All commonly used modes of survey data collection are supported including Static, Rapid Static, Pseudo-Kinematic, Stop & Go Kinematic and Continuous Kinematic. In addition, Ashtech Solutions supports processing of RINEX data format.

Ashtech Solutions utilizes the full capabilities of Windows 32-bit programming - allowing the user to design the interface on-the-fly.

Key Program Modules

Mission Planning

- Plan the best time of day to perform your survey data collection
- Includes both GPS and GLONASS Satellite Systems

Data Transfer

- Move survey data from field equipment to office PC

Vector Processing

- Process raw field data to produce vectors to and positions of unknown points. Supports processing of data collected in the following modes:
 - . Static
 - . Rapid Static
 - . Pseudo-Kinematic
 - . Stop&Go Kinematic
 - . Continuous Kinematic
- Manual processing tools support the ability to eliminate problem data from vector processing. Problem vectors can then be reprocessed to obtain better results
- Compensates for variations in GPS antenna phase center locations when processing vectors using data collected with different antenna types
- Supports dual-frequency GPS as well as single-frequency GPS and GPS+GLONASS data
- Blunder detection tools include unique site ID test, antenna height test, seed coordinate test, and minimum vector occupation time test
- Quality analysis tools include vector QA test, automatic repeat vector analysis, loop closure analysis, and auto control tie analysis

Least-Squares Adjustment

- Adjust vectors to isolate blunders, compute redundant point positions, and determine overall accuracy of the survey
- Blunder detection tools include network connectivity, chi-square and tau tests
- Survey accuracy analysis function employs NGS accuracy specification method with userdefined accuracy level

Datum Transformation & Map Projection

- Integrated transformation and grid system computations allow for processing, adjusting, reporting, and exporting point positions in user-selected or user-defined systems
- Long list of pre-defined datums along with user-defined capabilities using the 7-parameter method of computing and applying datum transformation parameters
- Long list of pre-defined grid systems along with user-defined capabilities using pre-defined map projection methods. Local grid system computation also available utilizing a 4-parameter method of computing and applying grid transformation parameters

- Transform GPS-derived grid positions to ground-based positions in one simple step. This transformation provides point-positions that can be traversed between with conventional surveying equipment

Report

- Produce detailed reports on results of survey data processing
- Report content is user selectable
- Supports user selection of word processing software as reporting mechanism

Export

- Export processing results to the following formats:
 - NGS Bluebook
 - TDS CR5 position file
 - Ashtech vector O-file
- Utilize a sophisticated user-defined formatting tool to generate export formats not found in the list of predefined formats

On-Line Help

- A comprehensive on-line help system is at your fingertips to assist in any and all aspects of the software

Compatibility

- Ashtech Solutions will process data collected from the following Ashtech receivers:
 - Z-Xtreme
 - ProMark2
 - Locus
 - Z-Surveyor
 - GG-Surveyor
 - Z-12
 - SCA-12
 - Dimension
 - P-12
 - M-12 (but not MD-12)
 - L-12 (but not LD-12)
- Ashtech Solutions supports processing of data in RINEX format
- The following Ashtech data collector systems are compatible with Ashtech Solutions:
 - Survey Control II v.1.0 or higher
 - Locus Handheld v.1.0 or higher
 - FieldMate/Seismark II/Mine Surveyor II v.3.0 or higher

System Requirements

- Pentium 90 MHz or faster w/CD-ROM drive
- 90 MB free hard disk w/32 MB RAM minimum
- Windows 95/98, Windows ME, Windows NT 4.0 or later, or Windows 2000 or Windows XP

Thales Navigation

Corporate Headquarters, Santa Clara, CA, USA

+1 408 615 5100 • Fax +1 408 615 5200

Toll Free (Sales in USA/Canada) 1 800 922 2401

Email professionalsales@thalesnavigation.com

In Washington, DC +1 703 476 2212 • Fax +1 703 476 2214

In South America +56 2 234 56 43 • Fax +56 2 234 56 47

In China +86 10 6566 9866 • Fax +86 10 6566 0246

European Headquarters, Carquefou, France

+33 2 28 09 38 00 • Fax +33 2 28 09 39 39

Email professionalsalesemea@thalesnavigation.com

In Russia +7 095 956 5400 • Fax +7 095 956 5360

In UK +44 1993 8867 66 • Fax +44 1993 8867 67

In the Netherlands +31 78 61 57 988 • Fax +31 78 61 52 027

Web site www.thalesnavigation.com



Am Grundwassersee 1
82402 Seeshaupt
Germany

Tel: +49 (0)8801 9133 40

Fax: +49 (0)8801 9133 44

Email: info@ppmgmbh.com

Thales Navigation follows a policy of continuous product improvement; specifications and descriptions are thus subject to change without notice.

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