



Ashtech Solutions

EASY-TO-USE GPS DATA PROCESSING SOFTWARE

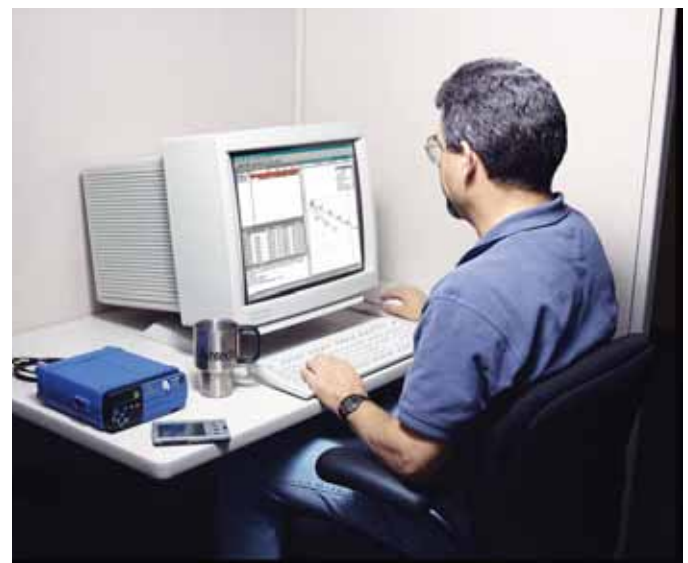
GPS DATA PROCESSING MADE EASY

Ashtech Solutions™ from Thales Navigation is a comprehensive software package containing all of the tools required to successfully process GPS and GPS+GLONASS survey data. Ashtech Solutions focuses 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 user's manual and comprehensive online help system are at your fingertips.

ACCURACY AND RELIABILITY

Ashtech Solutions 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 most Thales Navigation 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 format data.

TECHNICAL SPECIFICATIONS

Key Program Modules

Mission Planning

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

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 user-defined 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

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 Thales Navigation or Ashtech receivers:
 - Z-Max™
 - Z-Xtreme™
 - μ Z-GGRS™
 - ProMark2™
 - Locus™
 - Z-Surveyor™
 - GG-Surveyor™
 - Z-12™
 - SCA-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® 133 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

Language Support

- English
- French
- German
- Russian
- Spanish

Thales Navigation

Survey Solutions Contact Information

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

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

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

Email surveysalesemea@thalesnavigation.com

Web site www.thalesgroup.com/navigation



Grube 39a
82377 Penzberg
Germany

Tel.: +49 (8856) 80 30 980
Fax: +49 (8856) 80 30 988
Email: info@ppmgmbh.com
Web: www.ppmgmbh.com

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