INPHO SOFTWARE
inBLOCK

NEW-GENERATION BUNDLE BLOCK ADJUSTMENT SOFTWARE, COMBINING ADVANCED MATHEMATICAL MODELING WITH EXCELLENT GRAPHICAL ANALYSIS CAPABILITIES.

KEY FEATURES

inBLOCK is user-friendly with:

A powerful adjustment engine

Multi-camera support in one block and camera-specific self-calibration

Advanced methods for gross error detection

GPS and IMU data handling

inBLOCK is suited for adjusting aerial blocks of any shape and overlap, ranging from small projects to the most challenging ones.

Reconstruct the image orientation for image blocks of any shape with the following adjustment techniques:

- Advanced adjustment engine with full GPS and IMU support, shift and drift correction, self-calibration and effective multi-phase blunder detection

- Complete statistical information including variance components, precision, internal & external reliability measures, amongst others

- Excellent interactive graphical analysis capabilities combining traditional views (vectors, ellipses) with alternative visualizations, such as traffic lights, to simplify data inspection and quality control

- The flexible and configurable adjustment engine includes full GNSS and IMU support

FEATURE CAPABILITIES

- Multi-sensor concept supporting film cameras, digital frame cameras, GPS, and IMU

- Process image observations from manual or automatic measurement software like MATCH-AT or similar

- Import measurements from generic ASCII, PatB, Bingo, and ZI formats and use project conversion tools to convert project formats (Z/I, BAE SocetSet)

- Export projects to project formats (Z/I, BAE SocetSet, DatEM Summit Evolution) and generic EO formats (PATB, Bluh, Bingo)

- Transform projects between different datums and projections, grid-based transformations, 7-parameters transformations and geoid application available

- Robust computation of initial values for fully automatic block set-up; no need for schematic block information
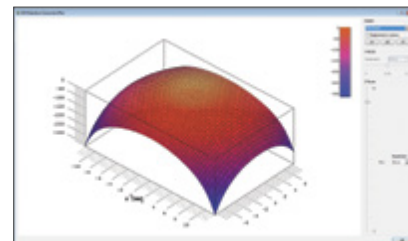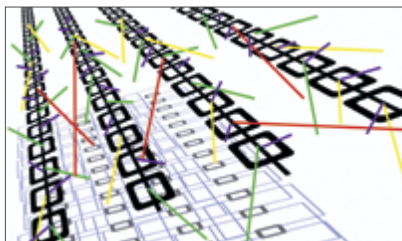
FEATURES OVERVIEW

- Powerful adjustment engine:
  - Free block adjustment possible
  - Flexible weighting schemes
  - Sparse matrix technology
  - Bandwidth minimization
  - Reduced normal equations

- Multi-camera support in one block and camera-specific self-calibration:
  - Three optional parameter sets: Physical (5), Brown (16) or Ebner (12)
  - Optional focal length & principle point calibration
  - Full camera calibration functionality with generated pdf calibration report

- Advanced methods for gross error detection:
  - Effective blunder elimination prior to adjustment
  - Robust estimation (automatic)
  - Data snooping (interactive)

- GPS data handling:
  - Drift and shift compensation (global or strip-wise)
  - Optional antenna eccentricity calibration

- IMU data handling:
  - Preprocessed GPS/IMU data from POS AV/POSEO by Applanix and AEROControl by IGI
  - Attitude data are used as constraints
  - Drift and shift compensation (global or strip-wise)
  - Boresight misalignment calibration (correction with up to 3rd polynom order)

- Comprehensive statistical information available:
  - Traditional values like residuals, RMS and standard deviations
  - Variance components
  - Internal and external reliability values for all observations and unknowns
  - Sensitivity analysis for undetectable gross errors, and their possible influence onto the block

- Sophisticated graphical block analysis:
  - Visualization of all results and statistical information
  - Interactive editing of observations (renaming, deactivating, reactivating, deleting, change of weighting)
  - Zooming, panning and rotation of data in 3D
  - Data classification and color-coding

BENEFITS

- Processes blocks of any shape and overlap
- Well-suited for calibration of digital aerial frame cameras
- Floating license with network dongle
- Extremely flexible calibration and correction parameters:
  - Easy to use intuitive graphical user interface
  - State-of-the-art computation algorithms
  - Full statistical information available
  - Sophisticated block visualization
  - High precision & high reliability
  - Easy integration into any third-party workflow

VERSIONS

- Stand-Alone inBLOCK license with full adjustment capability including full camera calibration
- Special camera calibration mode, available also with valid MATCH-AT license

OPTIONS

- Optional lite version for up to 250 frames, no sub-blocks, no project merging available
- Monthly rental and upgrades from competitive products available
- Maintenance includes support and version updates

SYSTEM REQUIREMENTS

- PC workstation
- 4 GB–8 GB RAM
- Windows 7, 64 bit

SUPPORTED SENSOR TYPES

- Analogue and digital frame imaging sensors, any type, any grade

Project Conversion/Import/Export:

- Project conversion to Inpho:
  - Z/I, DAT/EM, BAE SocetSet
- Project and EO exports:
  - DAT/EM Summit Evolution, BAE Socet Set, Z/I project, Aviosoft Ori, ABC-PC, AP32, Phorex/Pex, PATB, Bluh, Bingo
- EO imports: Generic ASCII, Phorex/Pex, PATB, Bluh, Bingo

For prices and distribution partner information please contact: sales@inpho.de

⊗ Trimble.