INPHO SOFTWARE
OrthoVista

AUTOMATICALLY ADJUST AND COMBINE ORTHOPHOTOS FROM ANY SOURCE INTO ONE SEAMLESS, COLOR-BALANCED GEOMETRICALLY PERFECT ORTHOPHOTO MOSAIC MAP WITHOUT ANY SUBDIVISION.

KEY FEATURES

OrthoVista plays a leading role in automatic radiometric image adjustment and automatic seam detection:

Handles orthophotos from any source with differing origin and resolution

Full automatic workflow

Automatic texture-depending adaptive feathering

Superior geometric and radiometric quality

OrthoVista performs a block-wide color balancing through adjusting adjacent images to match in color and brightness. Multiple orthophotos are combined into one seamless, color-balanced and geometrically perfect orthomosaic. Large blocks of thousands of orthophotos can be processed without any subdivision through Big-Tiff support. Alternative map-sheet tiling is also available.

The perfect ortho-mosaicing tool to complement for OrthoMaster ortho-rectification:

- Compute radiometric adjustments that compensate for a wide range of visual effects within individual images, such as intensity, hot spots, lens vignetting, brightness or color variations

- Automate key ortho-mosaicing functions to improve the efficiency, quality and profitability of digital orthophoto mosaic production

- Detect seamlines automatically and detect man-made objects without manual intervention, providing high-quality mosaics even in urban areas and reducing manual seamline editing. Should interactive seamline editing be necessary, a manual seam editor is provided

- Resamping capability to combine ortho imagery with differing resolution, differing origins or differing rotation

FEATURE CAPABILITIES

Increases the efficiency and quality of digital image mosaic production using a fully automated workflow:

- Easy integration into any third-party workflow

- Easy-to-use 3 step workflow even for non-photogrammetrists

- Perfectly hidden seams through adaptive blending between overlapping images depending on image content

- Feature detection algorithms for seam detection lead to a perfect result requiring no, or only very little, editing
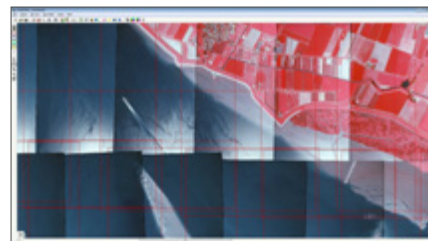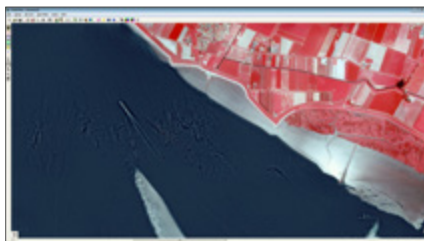
FEATURES OVERVIEW

- Full automatic workflow for perfect results:
  - Powerful intra-image tools for automatic reduction of lens vignetting, hot spot effects and radiometric variations
  - Block-wide balancing of color brightness and contrast (individual image characteristics preserved)
  - Automatic removal of sun reflections on water areas
  - Global color and contrast adjustment for correction of radiometric tilting
  - Mosaic space definition for resampling capabilities including irregular rotations of input orthos, origins or pixel sizes

- Professional radiometric image enhancement and editing tools:
  - Selective color correction option to apply changes for a small spectral range only
  - Interactive/automated adjustment of intensity, contrast, color and color saturation
  - Interactive modification of gradation curve for adjustment of brightness, contrast and color, selective color corrections for more natural colors
  - Automatic histogram adjustment
    ◊ Macro-recording for volume pre-editing
    ◊ Image enhancement with image reference to the complete block (image visualization)

- Versatile seamline functionality:
  - Fully automatic seamline detection with feature detection technology
  - Optional usage of exclusion polygons for seamline
  - Interactive seamline definition and editing

- Automatic feathering functionality:
  - Automatic adaptive blending width of the seamline with texture analysis
  - Narrow seam in "urban canyons"
  - Wide seam in open terrain

- Automatic tiling of the mosaic:
  - Mosaic is cut into map sheets
    ◊ Easy definition of map sheets
    ◊ Import of output tile definitions by file
    ◊ Optional polygonal output area (as inclusion or exclusion)

- Support for area definitions for exclusion/inclusion/water areas/restricted areas for seams. Simple or complex ("islands") area definitions available.

- Flexible processing steps done independently or in combination with each other

- Excellent processing capacity handles very large orthophoto blocks

- Support for multi-channel imagery

- Unique true-ortho functionality in combination with OrthoMaster

BENEFITS

- Increases the efficiency and quality of digital image mosaic production using a fully automated workflow
- Easy-to-use – even for non-photogrammetrists
- Professional image editing tools
- Total geometric flexibility for input data
- Easy integration into any third-party workflow:
  - Perfectly integrates into the inpho photogrammetric system – use pre-processed data and project files from OrthoMaster
  - Perfect input for Trimble eCognition feature detection software

OPTIONS

- OrthoVista SE separately available:
  - Seam editor for interactive mosaic editing and manual seamline definition
- OrthoVista Lite: Restricted to 250 frame images, 12 satellite or 12 pushbroom images. No parallel processing available.
- Monthly rental for OrthoVista versions available and upgrades from lite versions or competitive products
- Maintenance includes support and version updates

SYSTEM REQUIREMENTS

- High-end multicore PC workstation
- 8 GB RAM
- High-capacity disk system
- Windows 7, 64 bit, available also on Linux

BUNDLES

OrthoBox:

- Bundle of OrthoMaster and OrthoVista for maximum performance and easiest workflow

PERFORMANCE

- Computation of about 1500 images per day on state of the art desktop workstations

SUPPORTED SENSOR TYPES

- Imaging Sensors:
  - Analogue and digital frame sensors
  - Panchromatic or multichannel
  - ADS Pushbroom sensors
  - Satellite data

SUPPORTED FORMATS

- JPEG2000

- ADS40 (ads + tif, or ads + tfw)

- Versatile seamline functionality:
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  - Interactive seamline definition and editing

- Input georeference formats:
  - GeoTIFF, TiffWorld (tfw)
  - ER Mapper ERS, Zeiss inp, Vision RPT

- Image formats:
  - TIFF, TIFF JPEG, BigTIFF ADS (input only)
  - With 8-12-16 bit,
  - Multi-channel imagery supported, with optional output of RGB or CIR
  - BIP, BIL, BSQ

- Support for batch processing including multi-threading for high performance

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

◈· Trimble.