

# SOCET SET<sup>®</sup> v5.4

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## Release Enhancements

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## **Next-Generation Automatic Terrain Extraction (NGATE): Technologically advanced automatic terrain generation module**

- Works with all supported sensor and image types
- Does not assume that terrain is flat within the matching window
- Performs image matching on every pixel: results in data redundancy to enable consistency checking and better blunder detection
- Uses hybrid approach to combine matching results optimally from image correlation (area matching) and edge matching methodologies
- Accuracy and speed are based on user selection of the RSET level at which to stop
- Back matching is on by default

### **Core**

- Upgrade to Trolltech® Qt® 4 for compatibility with SOCET GXP
- Corrected issue: localized versions of Windows® XP (for example, Spanish) caused SOCET SET to hang
- Unified sensor model integration
- Chipping tool creates NITF RPC00B image for any input image type
- Batch chipping and RPC00B generation
- Preserve NITF and GeoTIFF information for terrain when exporting

### **Advanced Sensor Models (ASM)**

- Import and sensor models for GeoEye-1 and WorldView 1 imagery; satellites scheduled for launch in late 2007

### **Multi-Sensor Triangulation (MST)**

- Inconsistencies in Interactive Point Measurement (IPM) resolved: lock/unlock, lost measurements, etc.
- Enhanced sub-block processing
- Enhanced kappa initialization for GPS profiles
- Enhancement for Sensor Model Factory (SMF) sensors: correcting for an issue which prevented parameters from being edited

### **Automatic Terrain Extraction (ATE) and Interactive Terrain Editing (ITE)**

- Terrain Precision: Precision added to TIN
- ITE post editor shows Elevation, FOM and Precision
- Enhanced performance for bare-earth processing in Merge, ATE, NGATE, and ITE
- Project coordinate system information has been added to the terrain header file to allow compatibility with SOCET GXP
- Batch processing now allows creation of a terrain file based on the input coordinates in the batch processing settings file
- Breakline buffer distance has been fixed

### **Mosaic**

- Intensity Filter: equalize hotspots corresponding to large scale intensity variations typically caused by sun glare; includes Vignette filter to equalize radial brightness variations due to lens distortion in frame images
- New check box to allow thinning of terrain within mosaic; makes the minimum spacing approximately 10 pixels
- Enhancement to allow the batch process to output seamlines for sheets

### **Feature Extraction (FE)**

- Enhanced shapefile export to allow features to be exported that are closed polylines instead of polygons

### **SOCET for ArcGIS®**

- Auto-attribution enhancements: allow attributes such as height above ellipsoid (Z5F) to have negative values - prior to SOCET SET v5.4 all negative heights were set to 0.0 in ArcGIS
- Allow attribution to ignore text case; auto-populate for attributes was being forced to upper case values
- Preference to control auto-attribution – on/off
- Correction: fix synchronization issues between SOCET SET and ArcMap® : zoom (scale) relationship between SOCET SET and ArcMap would sometimes fail
- Correction: reordering layers in ArcMap previously caused issues in SOCET SET

## ClearFlite®

- Universal Data Delivery Format (UDDF) export for FAA/NOAA mode
- Correct issue: ClearFlite failed to recognize the names of the additional radial surfaces for the FAA/NOAA mode

## DataThruWay® (DTW)

- Correct issue: auto-minify causes NTM import to crash
- JTW SMF 9.2.5

## DPPDB and CIB® Format Generation

[SOCET SET Digital Point Positioning Data Base Format Production Module (DPPDB) [which uses MIL-PRF-89034, March 1999 format specifications] and SOCET SET Controlled Image Base (CIB) Format Production Module [which uses MIL-PRF-89041, 15 May 1999 format specifications].

- Compression blocks are set to one gray shade when cloud cover is encountered

## Developer's Kit (DevKit) and Batch Processing

- Better return error codes for DevKit and batch processing functions for system integrators

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