SP1 Release Highlights

Bigger Images in Object Analyst

The first update to the new Object Analyst package for segmentation and classification, first released earlier in 2017, improves memory management and performance. Larger scenes can be used without the need to subset or downsample the imagery, allowing larger projects to be completed more quickly and with fewer steps.

More InSAR Sensors

With the addition of RPC generation for stripmap mode, Kompsat-5, Cosmo-Skymed and TerraSar-X can now be used in the InSAR deformation workflow, allowing precise measurement of surface uplift, subsidence and related analysis.

Precise Semi-Global Matching in OrthoEngine

The new semi-global method, first included in Geomatica 2017 as a manual function, has now been integrated into the OrthoEngine DEM Extraction panel for all satellite and aerial projects. While the fast, normalized cross-correlation (NCC) method is still available, the new SGM method provides more precise results and fewer blunders.

Improved Smart Geo-Fill Interface

The Smart GeoFill tool has been redesigned with more powerful capabilities. These changes include:

- Direct manipulation of pixels to improve results during image copy-and-paste
- A convenient scrolling feature to inspect and select the best image from a stack of candidates
- Image edits that blend and match better
- On-the-fly digitization of vector shapes directly within the Smart GeoFill selection mode
- WYSIWYG display, including blending and exclusion previews

Expanded Atmospheric Correction Tools

There have been a number of updates made to Atmospheric Correction functionality in Geomatica. These changes align the tool with industry-standards and improve the ability of users to generate better results, complete full QA workflows and directly validate the resulting output.

- Reflectance scaling added to ATCOR output options, with 16-bit scaled data as the new default
- Spectral classification added as an analysis output from ATCOR process
- Upgrades to LAI, FPAR and SAVI functions to support newly scaled ATCOR output
- Addition of new Spectra Reflectance Plot to the Layer menu of Focus, which allows post-processing verification of ATCOR results versus known spectra
- Upgraded metadata support through the ATCOR process
- Modifications to ATCOR spectral plot scaling & labelling

SP1 Release Details

Sensor Support Updates

The following sensors are newly supported:

- Worldview-4: Ingest, Ortho, DEM Extraction, ATCOR
- PeruSat-1: Ingest, Ortho, DEM Extraction, ATCOR
- SuperView-1: Ingest, Ortho, DEM Extraction

The following sensors have upgraded support:

- Landsat Addition of support for Quality band information. Support for tiered data from USGS
- Kompsat-5: Updated support for metadata tags
- Kompsat-3: Upgraded support for Level 1O, Pansharpened products, 50cm data, and tiled format structure
- Radarsat-2: Added support for OSVN data

The following sensors have been added for full interferogram generation and analysis:

- Cosmo-SkyMed
- Kompsat-5
- TerraSar-X

Other Improvements

Interface:

- Project handling: Performance improvements when opening projects in OrthoEngine
- Bulk loading: When loading many similar images in one selection, users can set default loading parameters, making the overall process smoother.
- Elevation Model Editing: Addition of DEMADJUST functionality to all interfaces
- Translation support: Expanded language support with additional character sets

Functions:

- EPIPOLARDSM: Improvements to SGM DEM Extraction
- OEPNTTHIN: Tie point thinning performance improvements
- TPREFN: Tie point refinement performance improvements

User Feedback and Requests

As a standard part of any PCI software release, we have spent a great deal of time modifying the Geomatica environment and its processes based on direct customer feedback. Over 35 customer-requests have been addressed in the Geomatica 2017 SP1 release.