PCI Geomatics is pleased to announce the release of Geomatica 2018 SP1. For a detailed description of the changes in the release, please review the “What’s New in Geomatica 2018 SP1” document.

General Notes

Python Support

PCI has begun the migration of Geomatica to support Python 3.x. It is expected that the 2018 SP1 version may be the last one that will support Python 2.7. If you have any comments or questions, please contact PCI Support. (support@pcigeomatics.com)

Functional Changes

This release includes a number of functional changes that users should be aware of.

New Functions

The following functions have been added to the software for this release:

- MANAGEDDATASET – license code GEO
  - New function to enable users to copy, delete, rename, move, or list the files of a data set.
- RAS2LAZ – license code GEO
  - Function to convert and export a raster digital elevation model (DEM) and optionally imagery to a point cloud in LASzip compressed Lidar data (LAZ) format.

Modified Functions

The following functions have been modified in the 2018 SP1 release of Geomatica. This may include a change to the signature of the function.

- CDSPOTRPC – Ingest Spot DIMAP and CAP imagery with RPCs
- CHDETOP – Optical change detection
- CNTGTHMR – Create a contiguous thematic raster dataset
- CRPROJ – Create an OrthoEngine project
- DEMEDPREP – Prepare a DEM for manual editing
- DSM2DTM – Convert a digital-surface model to a digital terrain model
- DSMMERGE – Combine multiple DSMs to generate a multi-view DSM
- EPIPolar – Generate epipolar images
- EPIPOLARDSM - Epipolar Semi-Global Matching DSM extraction
- INSADJUST - Adjust interferometric phase for base-line offset and orbital-drift errors
- NUMWRIT – Write image data to a text or LASF file
- ORTHO – Orthorectify imagery
- PANSHARP2 – High-performance image fusion
- PSPOLFIL – POLSAR Lee adaptive filter
- PYRINT – Fast pyramid-based interpolation
- RESAMP – Resample an image
- SARSEG – SAR segmentation into regions
- SARSIM2 – SAR image simulation
- SGMMERGE. – Combine/Merge tri-stereo DSMs
- SPECLASS – Calculate spectral classification from data
- TEX – Texture analysis
- TRUEORTHO – True-ortho processing
- VEGINDEX – Generate vegetation indices

**Other Functionality**

The following capabilities were modified or added to Geomatica for the 2018 SP1 release:

**New in Geomatica Focus**

- Shaded relief map layers - PCI introduced shaded relief display as part of the DEM editing capability a few years ago.
  - For the 2018 SP1 release the shaded relief visualization technique is now available as a standard layer type.
- DEM Editing – Live Ortho Preview
  - The Live Ortho Preview window displays a full-resolution preview of the images orthorectified using the active digital elevation model (DEM), in which you can view changes in finer detail. When you apply changes to the DEM, the ortho images are regenerated automatically, and the preview displays an accurate depiction of how the changes affect images orthorectified using the updated DEM.

**Geomatica Focus - Modifications**

- Smart GeoFill – the following changes were made to the tools within Smart GeoFill:
  - Blend width optimizations
  - Improved linkage to the DEM Editing tools, which enables easier copying of pixels from the previewed orthoimages.
- Web Mapping Service (WMS) rendering
  - Optimizations were made to speed-up loading data from online services.

**OrthoEngine – Modifications**

- Mosaic Only projects – In 2018 PCI removed the “mosaic-only” project types from OrthoEngine, as users are now expected to utilize the Mosaic Tool applications to create these projects.
  - In 2018 SP1 the mosaic-only project was added back and it will lead the user to the Mosaic Tool to complete the processing.
- Kappa extraction – OrthoEngine will now extract the kappa rotation value from EXIF format metadata
Sensor Support

The following updates have been made for the 2018 SP1 release:

- Superview-1 - data now supported for atmospheric correction
- Sentinel-1 – Generated RPCs now more accurate as they are generated from state vector information.
- Gokturk-1 - full GDB support

Resolved Issues

There is a list of customer bugs that have been fixed since the Geomatica 2018 release on October 1, 2018. The following table lists some of these items:

<table>
<thead>
<tr>
<th>Issue ID</th>
<th>Component</th>
<th>Description</th>
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<tr>
<td>7469</td>
<td>Focus</td>
<td>Add decimal degrees option for displaying geographic coordinates</td>
</tr>
<tr>
<td>12685</td>
<td>Focus</td>
<td>Remove extraneous warning messages from classification tools</td>
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<tr>
<td>13703</td>
<td>Orthocorrection</td>
<td>Artifacts being produced in Orthos for areas of rough terrain</td>
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<td>DEM Extraction</td>
<td>EPIPOLARDSM not working with Toutin model and LAS data output</td>
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<td>13898</td>
<td>OrthoEngine</td>
<td>Ortho panel – move all button not working correctly</td>
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<td>DEM Extraction</td>
<td>SGM extraction in OrthoEngine not converting ELL to MSL correctly</td>
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<tr>
<td>14005</td>
<td>DEM Extraction</td>
<td>EPIPOLAR not properly orienting Pleiades tri-stereo imagery</td>
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<td>14038</td>
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<td>Renaming channel descriptors not working properly</td>
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<td>14058</td>
<td>Functions</td>
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<td>14109</td>
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<td>Superview-1 solar zenith angle set incorrectly when ingesting data</td>
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<td>14263</td>
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<td>Superview-1 acquisition time in Beijing time, not UTC</td>
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<td>14292</td>
<td>GDB</td>
<td>Spot MS imagery bands are not labelled correctly</td>
</tr>
</tbody>
</table>
Known Issues

The following is a list of known problems in the 2018 SP1 release that are being fixed and should be available in the next release of Geomatica.

If you need this fix prior to that time, please contact PCI Support.

<table>
<thead>
<tr>
<th>Bug Number</th>
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<td>13951</td>
<td>Focus</td>
<td>Display when rotation angle is greater than 90 degrees not working properly</td>
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