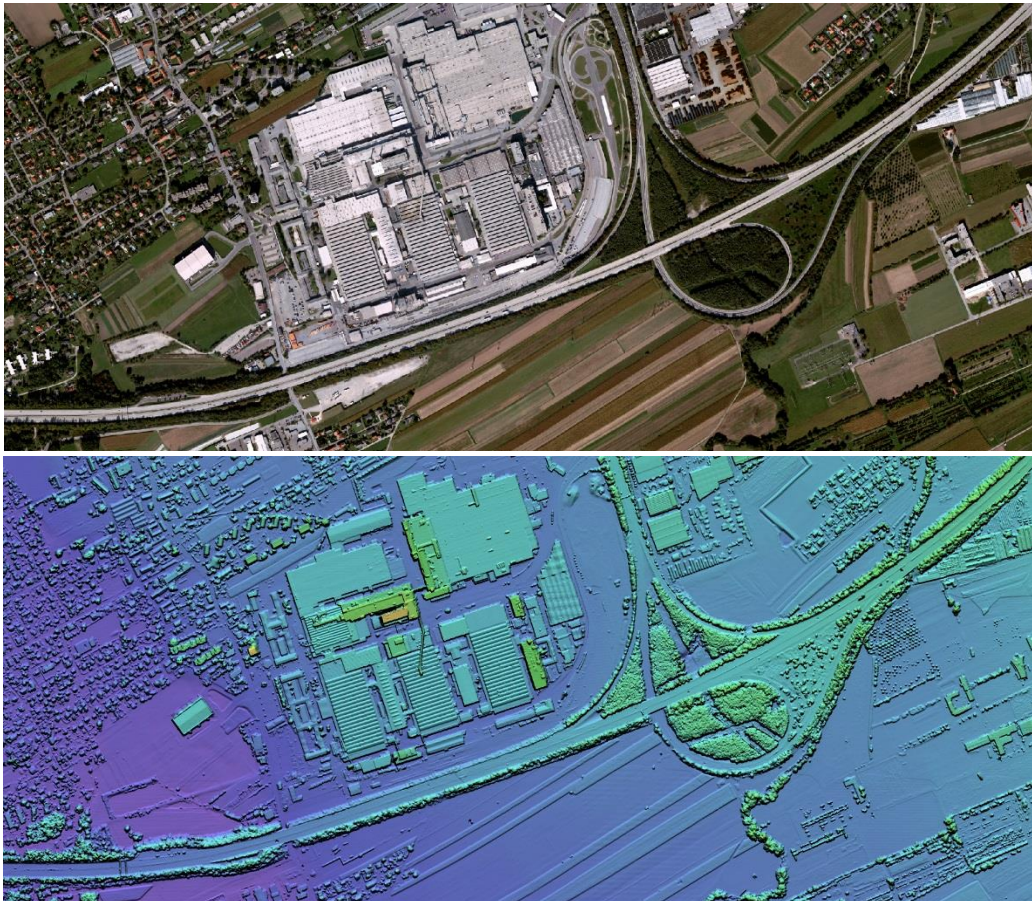


## Highlights

### Faster to the finish line

#### End-to-end improvements for generating beautiful, accurate mosaics



High resolution airphoto (upper) and extracted surface model (lower)

#### Faster, more accurate model calculation with better reporting

- Relative and absolute accuracy models for areas with poor control or overlap
- Image deactivation for fast quality control and for weeding out duplicate or rotated images
- Improved speed and accuracy for automatic tie-point collection

#### Improved DEM extraction

- Full 1:1 resolution for satellite sensors
- Better memory usage and results up to twice as fast

#### Better looking mosaics, automatically

- New edge-matching, contrast and brightness adjustment (sigma value)

## *More Highlights*

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### New and expanded SAR capabilities

- New tools have been added for compact PolSAR, providing additional analysis options.
- PALSAR sensor ingest now includes GCP segments and calibration metadata for simpler, more accurate workflows and results. Compact sensors include:
  - RISAT 1 (improved support)
  - PALSAR 2
  - SAOCOM 1 / 2
  - RCM 1 / 2 / 3 (satellites in development)

### New ADS Package

- Provides model calculation and orthorectification for ADS40, ADS80 and ADS100 imagery in OrthoEngine

### Geomatica Developer Edition

- Full suite of powerful Geomatica algorithms, over 550 in total
- Provides access to a geospatial image processing platform to easily build custom applications and workflows
- Integrates with Python libraries for additional GIS, statistical, modelling and other functions to let you create exactly what you need

## *Details on improvements and new capabilities*

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### Aerotriangulation

#### Relative and absolute accuracy workflows

Automatic GCP collection and automatic tie-point collection can be run separately or together for more flexible operations, especially in areas with poor ground control.

- OEBUNDLEOPT provides new options for relative orientations

#### Improved tie-point collection

- Accuracy and speed of tie-point collection has been improved by up to 20%
- Provides better model calculations in less time

#### Better reporting

- Statistical reports now include bias, standard deviation and z-residuals



- Allows faster identification and weeding of bad points

#### Image deactivation

- Quickly and easily decide if images should be excluded from model calculation
- Helps weed out bad images for QA/QC
- Allows removal of duplicate or rotated images, e.g. from rotor-based projects and corners

#### Other improvements

- Refined flightline thresholds improves model accuracy
- Camera model import and export allows re-use of set-ups in subsequent projects
- EXIF tag reading for TIF and JPG provides more metadata information

## ADS Support

ADS imagery can now be orthorectified and mosaicked in OrthoEngine through a new sensor add-on.

- **ADSMODEL**: Model calculation and block adjustment, including GCP collection
- ADS workflow in OrthoEngine add-on
- Better GDB import of ADS data (see Sensor Support, below)

## Synthetic Aperture RADAR

Improved sensor support and new functions have been added for compact SAR

- **PALSAR-1** ingest, with geocoding and calibration support
- **PALSAR-2** ingest, with geocoding and calibration support
- **PSCOMDEC**: Apply decompositions to compact polarimetric SAR imagery
- **PSCOMDIS**: Calculate compact polarimetric discriminators
- **PSRECONS**: Reconstructs a pseudo fully-polarimetric (FP) covariance matrix using compact polarimetric data as input

## DEM improvements

#### DEM extraction and editing

- Increased performance and handling of large datasets, e.g. GeoEye strips
- Improvements to accuracy along both clipped and natural edges
- Flatter water areas with fewer blunders to remove
- Improved speed and memory usage, up to twice as fast
- Feasible to extract full 1:1 resolution models for high-res satellite sensors



## Ortho-mosaic improvements

- New contrast and brightness (sigma) correction, for automatic edge-matching and manual point editing (e.g. haze)
  - Saves time and produces excellent automatic results under most circumstances
  - The updated Mosaic-Tool interface enables manual adjustments
- Exposure correction added to the Smart GeoFill tool
  - Allow users to easily correct over- (or under-) exposed pixels locally in an image
  - As with automatic exposure correction, details are gained in over-exposed areas without affecting overall image brightness, contrast or colour

## Sensor Support Updates

The following sensors are newly supported:

- Deimos-1: Including orbital metadata, GCP segments and atmospheric correction compatibility
- Deimos-2: Including orbital metadata, GCP segments and atmospheric correction compatibility
- ALOS-2 PALSAR: Including geocoding and calibration support
- TripleSat

The following sensors have upgraded support:

- ADS / SOCET Set: Including level 0/1/2 for ADS 40/80 and level 1/2 for ADS 100
- ALOS-1 PALSAR: No including geocoding and calibration support

Atmospheric correction (ATCOR) now includes support for more sensors:

- Deimos-1
- Deimos-2
- Gaofen-2 (GF-2)
- Thaichote (THEOS)

## Atmospheric Correction

- Improved interface to the signature library

## 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 100 customer-requests have been addressed in the Geomatica 2016.