

# Rolta Geomatica 2012

**Most applications using geospatial data on Standalone desktops/ Intranet/ Internet platforms are interdisciplinary; data ingestion, remote sensing, image processing, spatial analysis/ GIS, and visualization/ cartographic quality maps must be used to extract information and provide answers from existing data.**

Geomatica is designed to support the analytical demands of the most challenging problems confronted in our stewardship of the environment as well as to provide day-to-day support for the common tasks of GIS and Image Processing. With the newest release of Geomatica, PCI Geomatics continues to push the boundaries of performance and enable geospatial professionals to solve real-world problems faster and more cost effectively.

## Platform Support:

Operating System	Vendor	Hardware	Supported Versions
Windows	Microsoft	Intel/AMD x86_64 64bit	Windows XP / Vista / Windows 7 / Server 2003 / Server 2008
Linux	Various	Intel/AMD x86_64 64bit	Kernel version 2.6.27, glibc version 2.9, gcc 4.3

## Rolta Geomatica Focus:

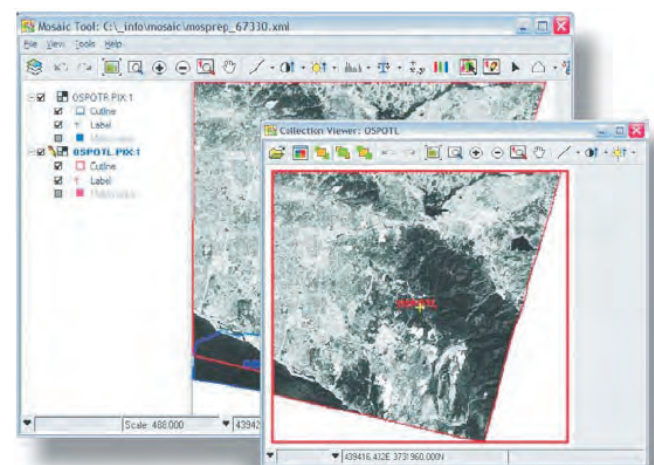
Rolta Geomatica Focus - a state-of-the-art work environment that includes a fully georeferenced, file-based visualization tool for raster and vector including editing in an easy-to-use interface with the new features in Geomatica 2012:

- Geomatica Focus is now Open-MP enabled
- "On-the-fly" automatic image enhancements
- Enhance all images tool – enhance multiple images in a single click
- Visualization of ground control points (GCPs) collected during orthorectification

## Rolta Geomatica OrthoEngine:

Rolta Geomatica 2012, continues delivering the best orthorectification and mosaicking tools in the market; including improvements in:

- Manual Mosaicking
- Physical Modeling
- Adjust Orthos
- Automated Processing



## SAR Polarimetry Target Analysis (SPTA):

The SAR Polarimetry Target Analysis application is now integrated part of installation for the 2012 release. This tool, which is a key component of the SAR Polarimetry add-on module, is now available from the Geomatica 2012 toolbar. The application has also had a number of enhancements to streamline usage and improve output reporting and results.

## Standard image processing capabilities including:

- Image enhancements
- Image filtering and edge extraction
- Resampling, reprojection and clipping

## Optical satellite image analysis including:

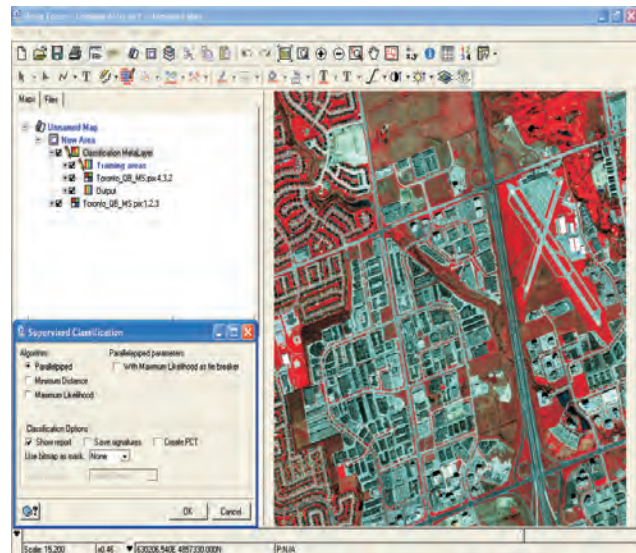
- Atmospheric correction
- Pixel-based image classification
- Contextual/ fuzzy classification
- Neural network classification
- Spectral Unmixing
- Raster Calculator

## Attribute management tools including:

- Attribute Manager for viewing, editing and querying
- Charting [column, bar, line, area and pie charts]
- Spatial query [Query by example, others]
- Direct access to 100+ geospatial data formats through the Rolta Geomatics exclusive Generic Database (GDB) technology.

## Other New Features

- Clip Raw Raster with RPC both in EASI/Modeler and Clipping/Subsetting tool
- Improved Projection Support both in Focus and via new PROJ2 function
- Complex data support in PCIDSK format
- KML Export: "Export to Google Earth" capability in Focus as well as EXPORT2KML in EASI/Modeler



## New Functions

### Coherent Change Detection

The CCD functions are a complete set of tools designed specifically for the detection and analysis of changes extracted from a user-specified test and reference SAR image pair.

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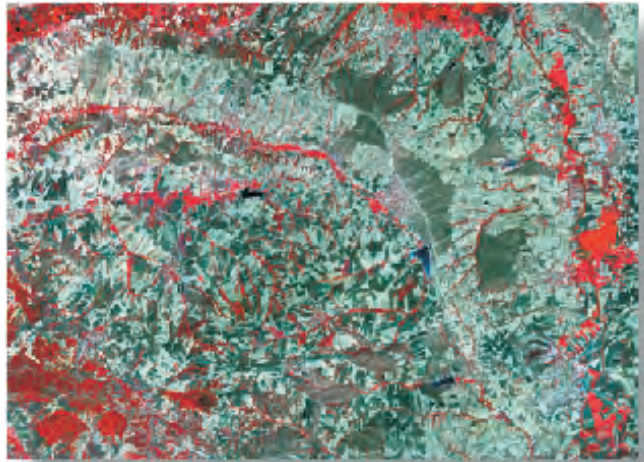
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## Supported Formats

- ADRG
- ArcGIS Server – Image Extension
- Arc/Info Coverage
- Arc/Info GRID (Binary, ASCII)
- Arc/Info TIN (NET)
- AutoCAD (DXF)
- Compressed ARC Digitized Raster Graphics (CADRG)
- Satellites (CEOS)
- USGS Digital Elevation Model (DEM)
- USGS Digital Line Graph (DLG)
- USGS Digital Orthophoto Quadrangle (DOQ)
- Digital Terrain Elevation Data (DTED)
- ENVI raster files (HDR)
- Erdas Imagine (IMG)
- Erdas GIS and LAN
- ER Mapper Compressed Rasters (ECW)
- Geography Markup Language (GML)
- Geosoft GRID File – Binary, ASCII
- GRASS Raster/Vector (GRS)
- HDF-EOS files
- IDRISI Raster, Vector
- Intergraph Raster Files
- JPEG 2000
- Keyhole Markup Language (Google Earth KML)
- ASPRS LIDAR Data Exchange Format Standard (LASF)
- Laser-Scan
- LGSOWG/CEOS CD-ROM
- MapInfo Data Interchange Format (MIF, MID)
- Map Info Table (TAB)
- Microstation Design Files (DGN)
- LizardTech MrSID
- National Imagery Transmission Format (NITF)
- Caris Interchange format (NTX)
- Open database connectivity (ODBC)
- Open Geospatial Datastore Interface (OGDI)
- ORACLE Spatial
- PAMAP (Read/Write)
- RADARSAT-2
- Raster Product Format (RPF)
- Spatial Data Transfer Standard
- SeaWIFS CEOS
- SeaWIFS HDF
- Siemens SICAD
- Socet Set
- SOI' DVD
- SPANS quadtree, attribute table format (TBA), Vector
- SPOTView GIS-GEOSPOT
- Sun Raster (SUN)
- Targa Raster File (TGA)
- TIFF GeoTIFF
- + More!



## Upgraded Performance

Specific functionality in Geomatica 2012 has been designed specifically to take advantage of multiple processor machines and hyper-threading. New functions have been written to take advantage of all the power your system has to offer. Eventually the old versions of these functions will be retired. In Geomatica 2012 this includes:

**ORTHO2** - Uses different geometric models to orthorectify images.

**MOSRUN2** - Assembles the various input source images into a continuous mosaic.

**REPROJ2** - Reprojects both raster and vector data from a valid projection to another valid projection

## Retired Functionality

The following items have been retired from Geomatica:

**OrthoEngine 3-D Feature Extraction** – Old 3-D feature extraction technology has now been retired from Rolta Geomatica 2012. DAT/EM Summit software solution for will be selling for 3-D work.

**PSCREATE** - The capabilities of PSCREATE are superseded by the new SARINGEST capability

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**PSDTL** - Decibel to linear conversion functions is replaced by SARINGEST capabilities.

## Minimum Recommended System Requirements

O/S Platform	Windows XP / Server 2003 / Server 2000 / Vista / Windows 7	Linux RedHat Enterprise Workstation 4 / SuSe 10.1 **Requires Open Motif 2.2
Processor	2.2 GHz or higher Multiple core processors strongly recommended 1	2.2 GHz or higher Multiple core processors strongly recommended 1
Memory	2 GB or higher 4 GB or higher recommended 2	2 GB or higher 4 GB or higher recommended 2
Graphics Cards	24-bit Windows graphics card or accelerator running at 1280 x 1024 pixels	24-bit Windows graphics card or accelerator running at 1280 x 1024 pixels
Disk Space	1 GB free hard disk space for software installation 1 GB free installing all demonstration datasets Customer data storage requirement	1 GB free hard disk space for software installation 1 GB free installing all demonstration datasets Customer data storage requirement

1 Specific functionality in Geomatica 2012 has been designed to take advantage of multiple processor machines and hyper-threading. For a list of those supported, please contact PCI Geomatics.

2 Systems with less than 4GB of RAM will page memory to the hard disk and have significantly lower performance. Page files (swap files) should be at least 1.5 times the amount of RAM. See your operating system requirements.



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