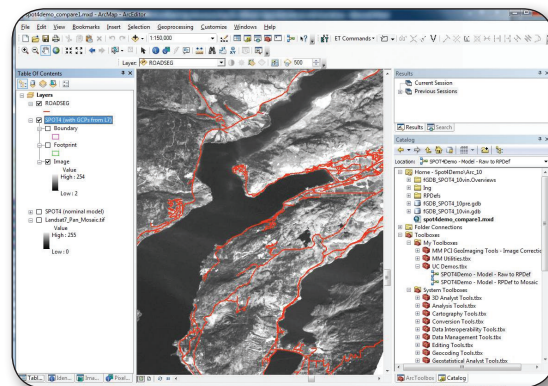




## The tools you need for Imagery!

GIS users can now rely upon GeoImaging Tools for ArcGIS®, offering accurate and efficient means of correcting raw imagery and opening new doors for the integration of remotely sensed imagery into GIS workflows. PCI Geomatics are the imagery experts with over 28 years of experience in building image-processing software.

Our technology is known for its rigorous, automated and accurate optical and SAR satellite image corrections, providing imagery based layers that can be used to derive new information in your GIS environment. Built as an extension to ArcGIS 10, PCI's GeoImaging Tools for ArcGIS enables ArcGIS users to integrate accurate imagery into their workflows. Users have the option to save the correction parameters into the Raster Processing Definition (RPDef) format, reducing data duplication by using PCI's powerful sensor model definitions!



- **Improve the registration accuracy** through the collection of control points
- **Correct many images simultaneously** using block bundle adjustments - using tie-points to achieve even higher levels of registration accuracy
- **Perform accurate change detection and feature extraction** operations in the GIS using imagery corrected using GeoImaging Tools for ArcGIS

## Supported sensors

With GeoImaging Tools, you can now access a wide variety of optical and SAR satellites, which can all be corrected and ingested into ArcGIS. The following table shows a partial list of those sensors supported:

Satellite Sensors		Radar Sensors	
ALOS-AVNIR	HJ-1A	Landsat-7	ASAR
ALOS-PRISM	HJ-1B	QuickBird	RADARSAT-1
ASTER	Ikonos	Rapideye	RADARSAT-2
CARTOSAT-1	IRS-LISS	Spot-4	TerraSAR-X
CBERS	Kompsat-2	Spot-5	
GeoEye-1	Landsat-5	WorldView-1/2	

## How the software integration works

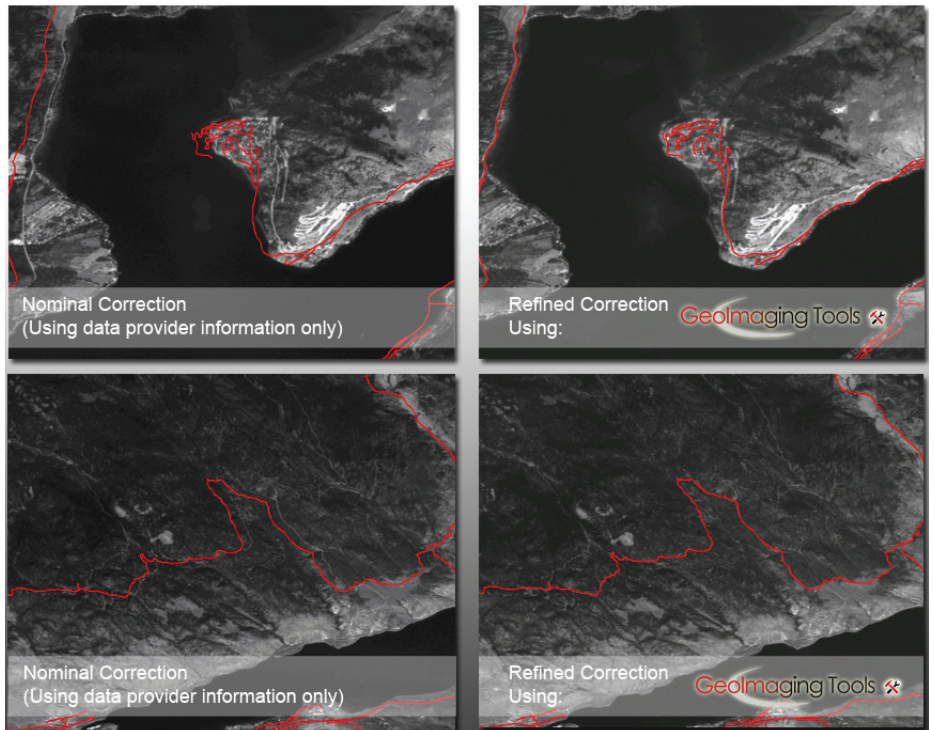
Version 2.0 of GeoImaging Tools for ArcGIS is created as an extension for ArcGIS 10. To use it, users must have ArcGIS 10 and Python 2.6 installed on their system. The capabilities are implemented as a series of tools within the GeoProcessing toolbox, which can be linked together to form a repeatable workflow.

- **Ingest Raw Scenes** - Ingests raw satellite scenes along with metadata and model information
- **Refine Raw Scenes with GCPs** - Collects Ground Control Points (GCPs) from various reference sources and uses them to refine the nominal math model
- **Refine Raw Scenes with TPs** - Collects Tie Points (TPs) from a set of overlapping scenes and refines the math model
- **Write RPDefs** - Creates Raster Process Definition (RPDef) files from input raster files that have a math model segment

## Applications

Poor imagery registration limits the GIS user's ability to efficiently perform simple tasks, like change detection and feature extraction. Geomapping Tools for ArcGIS will improve users' abilities in the following areas:

- **Urban Change Detection**
- **Deforestation Studies**
- **Map Updating**
- **Emergency Management**



## Geomapping Tools for ArcGIS key features/benefits

FEATURE	BENEFIT
Support for multiple commercial satellites, both optical and SAR	Expand your production capability and reduce costs by taking advantage of different sensors all with one software package
Refine nominal model using ground control points (GCPs)	Reduce production costs by achieving high levels of registration accuracy
Collect GCPs from a variety of sources, including existing ArcGIS Server image services	Use existing control information to correct imagery, leveraging existing in house infrastructure
Automated GCP and Tie Point collection	Eliminate hundreds of person hours through the power of automated GCP & TP collection
Block bundle adjustment	Correct multiple images together once, eliminating across image misalignment and reducing re-work on larger projects



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