

# Leica Geosystems

## What's New in ERDAS IMAGINE 9.2

### **OVERVIEW**

ERDAS IMAGINE® is the raster geoprocessing software GIS, Remote Sensing and Photogrammetry professionals use to extract information from satellite and aerial images. Easy to learn and easy to use, ERDAS IMAGINE is perfect for beginners and experts alike. The vast array of tools allows users to analyze data from almost any source and present it in formats ranging from printed maps to 3D models, making ERDAS IMAGINE a comprehensive toolbox for geographic imaging, image processing, and raster GIS needs.

Version 9.2 of the ERDAS IMAGINE suite adds sophisticated tools largely geared toward the more expert user, and forms a foundation for less complex versions in future releases of ERDAS IMAGINE.

Please refer to the What's New in Defense Oriented Features in 9.2 for additional features found in the ERDAS IMAGINE suite.

### **IMAGINE Essentials**

- **GeoServices Explorer:**  
The GeoServices Explorer assists in discovering GeoSpatial entities from a variety of services, including: Image Web Server (IWS), Open Geospatial Consortium (OGC – Web Services) data. The user can explore the data with tools to view geographic location and extent, as well as associated metadata.
- **Improved Viewer Performance:**  
The users experiences improved panning, virtual roaming, and general Viewer function enhancements due to improved support for Multi-threading and DirectX.
- **Improved GCP Collection:**  
The user experience when rectifying imagery has been improved. Hundreds of GCPs can now be displayed or refreshed in an instant.
- **Improved Blend/Fade, Swipe, Flicker:**  
The Blend/Fade, Swipe, and Flicker image comparison tools have improved to allow multiple layer transparencies, locked layers, smoother transitions and more user control while in a static view and while panning, and zooming.
- **Improved Vector Handling:**  
The vector data handling in the viewer has been improved to better handle Shapefiles with mismatches between the shapes and the database. The data proceeds with the display and reports the mismatches in the Session Log.
- **Viewer Recent View**  
The viewer now supports a reverse recent view capability allowing the user to move backwards through the image manual pans and zooms.
- **Spatial Profile:**  
The Spatial Profile tool has been enhanced for efficiency. Users can now use existing vectors to define a profile path, automatically annotate distance in the viewer, and reverse the plot direction.
- **Annotation:**  
The attributes of vector features can be rapidly converted to overlain annotation.
- **Virtual Mosaic:**  
Virtual mosaic performance has been improved, and the user can now create a virtual mosaic by loading an ESRI Image Catalog file.
- **Improved file support:**  
The following formats have been added or enhanced: ECW, JPEG2000, HDF, ALOS PALSAR, AVNIR-2, and

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PRISM, TerraSAR-X, FORMOSAT-2, BigTIFF (TIFF-64), and GeoTIFF. ECW read capability is in IMAGINE Essentials and write capability is in IMAGINE Professional.

- **ArcGIS 9.2 & 9.3 Compatibility**  
IMAGINE 9.2 and ArcGIS 9.2 & 9.3 can be installed on the same system, Support for Geodatabases of version 9.2 or earlier are supported.
- **And more...**

### IMAGINE Advantage

- **Terrain Prep Tool:**  
Process over 50,000,000 points into a raster or LTF surface.
- **Sensor Models Added:**  
FORMOSAT, GeoEye-1, World View-1.
- **Independent Component Analysis:**  
An advanced image processing technique which exploits higher-order statistical properties in image data to assist in resolution merges, spectral unmixing, shadow detection, and classifications, among other functions.
- **Improved Data Handling in Mosaic Tool:**  
Data handling has been improved to allow for a larger number of images to be used as input.
- **Painted Relief:**  
Painted Relief has been improved to provide a more intuitive interface and offer more options to the end user.
- **And more...**

### IMAGINE Professional

- **Subpixel Classification:**  
Subpixel Classification is now licensed and made available to IMAGINE Professional customers.
- **ECW Compression:**  
ECW Compression is supported in Export in both single image and batch modes.
- **Image Segmentation:**  
Partition (classify) raster images based on pixel values and locations. Pixels spatially connected and with similar pixel values will be grouped together.
- **And more...**

### IMAGINE InSAR

- **New Phase Unwrapping from DLR:**  
An efficient interferogram unwrapping developed by the German Space Agency (DLR) was added.
- **Improved Automatic and Semi-automatic Co-Registration Tools:**  
Uses image ephemeris information and automatic correlation to automatically achieve a sub-pixel registration.
- **Faster And More Sophisticated Interferogram Filter:**  
A new interferogram filter allows both automatic and manual tuning suppresses noise prior to the Unwrap.
- **Automatic Baseline Correction:**  
Using input GCPs, the baseline can be fine-tuned.
- **And more...**