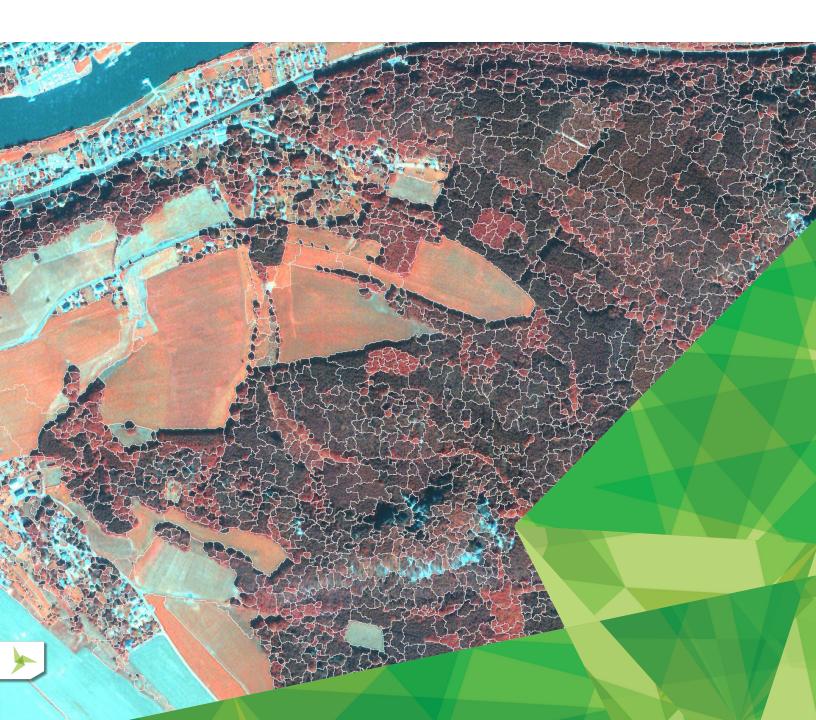
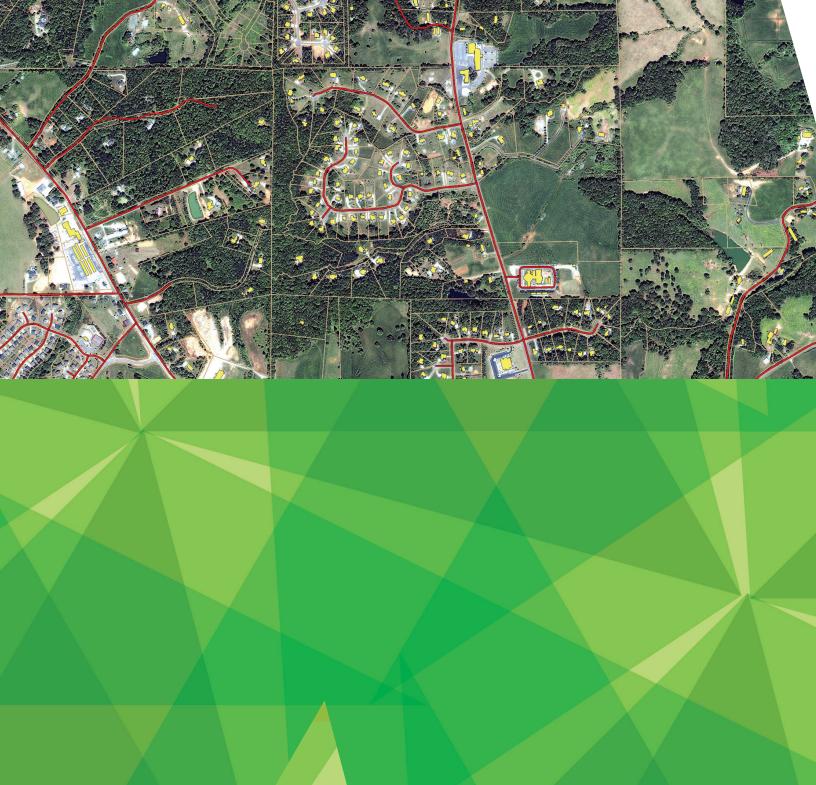
PRODUCT BROCHURE



# ERDAS IMAGINE®

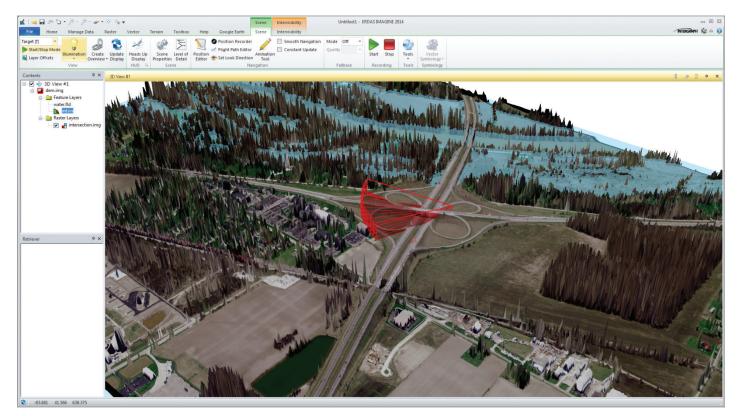
THE WORLD'S MOST WIDELY-USED REMOTE SENSING SOFTWARE PACKAGE





# ERDAS IMAGINE

Geographic imaging professionals need to process vast amounts of geospatial data every day — often relying on software designed for other purposes and add-on applications that create almost as many problems as they solve. Is it possible to save both time and money, leverage existing data investments, and improve your image analysis capabilities, with just one software application? Yes, it is.



ERDAS IMAGINE was the first to provide 3D visualization of all geospatial data types.

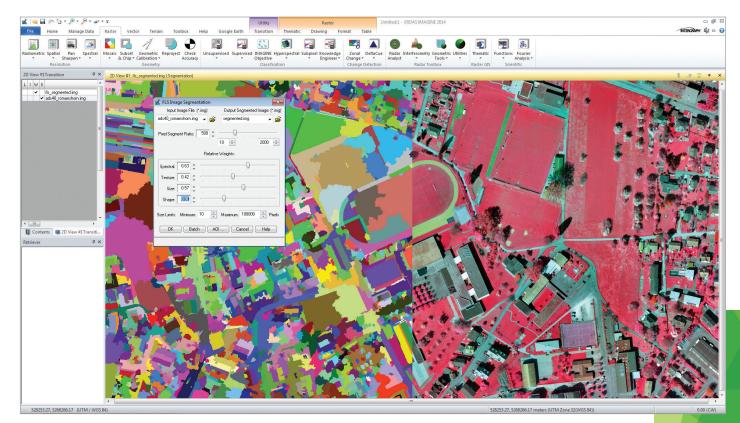
ERDAS IMAGINE is offered within the Producer Suite® of the Power Portfolio®. The Producer Suite empowers you to collect, process, analyze and understand raw geospatial data, and ultimately deliver usable information. This includes Hexagon Geospatial's desktop-based GIS, remote sensing, and photogrammetry offerings.

ERDAS IMAGINE provides true value, consolidating remote sensing, photogrammetry, LiDAR analysis, basic vector analysis, and radar processing into a single product. We offer many solutions in one, incorporating the following standards, enterprise capabilities, and products:

- Image analysis, remote sensing, and GIS
- Support for optical panchromatic, multispectral and hyperspectral imagery, radar, and LiDAR data
- User-friendly ribbon interface
- Multi-core and distributed processing

- Spatial modeling with raster, vector, and point cloud operators, as well as real-time results preview
- High-performance terrain preparation and mosaicking
- A variety of change detection tools
- ERDAS ER Mapper algorithm support
- Ability to convert more than 190 image formats into all major file formats, including GeoTIFF, NITF, CADRG, JPEG, JPEG2000, ECW, and MrSID
- Comprehensive OGC<sup>®</sup> web services, including Web Processing Service (WPS), Web Coverage Service (WCS), Web Mapping Service (WMS), and Catalog Services for the Web (CS-W)





ERDAS IMAGINE provides more classification solutions than any other product on the market, including K-Means, ISODATA, and object-based image segmentation and Machine Learning algorithms.

# MAKE THE MOST OF YOUR GEOSPATIAL DATA

Imagery and LiDAR are the primary sources of data for mapping and managing features or resources. Whether you are studying changes in urban growth, sensitive environments, mapping resources, or assessing damage from natural disasters, a geospatial data archive enables you to reference and measure the amount of change that has taken place in a geographic area. Accurate and up-to-date data leads to quicker, more informed decisions.

ERDAS IMAGINE unites users from different departments within your organization, saving training time and increasing productivity. Your co-workers, business partners, and clients can now work on a project and produce consistent results through a single intuitive interface. You can also customize ERDAS IMAGINE to simplify your workflows.

## VERSATILE

For organizations with extensive collections of geospatial data. ERDAS IMAGINE supports enterprise-enabled geospatial image processing that utilizes a centralized relational database to store geospatial information. This provides enormous benefit to an institution, making data visible and accessible to end users through data management solutions such as ERDAS® APOLLO. Existing and future investments in image and feature geospatial information are exploitable by the greatest number of decision-makers.

As users upgrade their hardware and operating systems, ERDAS IMAGINE takes advantage of these new technologies through threading, parallel processing, and minimizing the number of times the pixel is touched on the hard disk. Batch tools in IMAGINE Advantage<sup>®</sup> and IMAGINE Professional<sup>®</sup> enable multi-core and distributed processing jobs, allowing large projects to fully leverage system and network resources.

#### SEAMLESS

How do you maximize the investment in your geospatial data? ERDAS IMAGINE simplifies classification, orthorectification, mosaicking, reprojection, and image interpretation while maintaining the integrity of the geospatial data you need for updating your GIS in multiple formats.

The intuitive ERDAS IMAGINE interface streamlines your workflow and saves time. Powerful algorithms and data processing functions work behind the scenes so you can concentrate on your analyses. The quick display and ability to work with multiple datasets in geographically linked viewers in ERDAS IMAGINE dramatically reduces the time you would otherwise spend trying to manually relate information from various sources. The Producer Suite empowers you to collect, process, analyze, and understand raw geospatial data, and ultimately deliver usable information.

## COMPLETE

#### ERDAS IMAGINE is easy-to-use, raster-based software designed

specifically to extract information from images. Perfect for beginners and experts alike, easy-to-learn ERDAS IMAGINE enables you to process imagery like a seasoned professional, regardless of your experience in geographic imaging.

ERDAS IMAGINE is the most powerful package for derived information (data production), supporting multiple workflows including:

- Data conversion
- Orthorectification
- Color balancing, mosaicking, and compression
- Land-cover mapping and terrain categorization
- LiDAR editing and classification
- Map and report generation and printing through the map composer, PowerPoint<sup>®</sup>, or Word
- Feature capture and update
- Spatial modeling and analysis
- Terrain creation, editing, and analysis



# **ONE CONNECTED SOLUTION**

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ERDAS IMAGINE connects the entire geospatial Power Portfolio of products to comprise a seamless, complete solution to geo-enable your enterprise.

POWER PORTFOLIO	PRODUCT & INTERACTION		
PRODUCER SUITE	Link to a GeoMedia <sup>®</sup> environment from the ERDAS IMAGINE interface to synchronize navigation and Area of Interest.		
	Enhance Imagery in ERDAS IMAGINE before bringing it into GeoMedia.		
	Open or create your Photogrammetry project directly in ERDAS IMAGINE with the IMAGINE Photogrammetry suite.		
	Raster backdrops using the ultra-fast ECW compression format may be directly consumed in ERDAS IMAGINE and IMAGINE Photogrammetry.		
	Import ImageStation projects into ERDAS IMAGINE or directly consume them in GeoMedia for ortho creation and mosaicking.		
	Enhance Imagery in ERDAS IMAGINE before publishing to GeoMedia WebMap.		
PROVIDER SUITE	Spatial models created in ERDAS IMAGINE can be published to ERDAS APOLLO and delivered over the Internet as server-side geoprocesses (WPS).		
	Raster backdrops can be streamed, using the ultra-fast ECWP streaming protocol, by ERDAS APOLLO.		
PLATFORM SUITE	Raster backdrops authored in ERDAS IMAGINE can be directly consumed in GeoMedia Smart Client and Geospatial Portal.		

### **FLEXIBLE OFFERING**

Available in three product tiers, ERDAS IMAGINE is capable of handling any geospatial task. Simple enough for the most novice user to get started, yet powerful enough for those requiring robust accuracy, ERDAS IMAGINE is suited for any application or project your organization demands. All three tiers offer remarkably fast viewing and processing performance, even when handling massive datasets from any sensor in any format, dynamically.

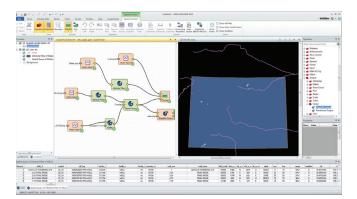
#### **IMAGINE ESSENTIALS**

IMAGINE Essentials<sup>®</sup>: A powerful, low-cost image and LiDAR mapping and visualization tool that allows different types of geospatial data to be combined and quickly organized for projects. IMAGINE Essentials provides a robust set of tools for geocorrection, analysis, visualization, and map output.

#### **IMAGINE ADVANTAGE**

A geographic imaging toolset that extends the capabilities of IMAGINE Essentials by adding more precise mapping with sensor model support and geospatial data processing functions.

The IMAGINE Advantage level allows for point cloud editing and includes a complete set of tools to analyze data from imagery via mosaicking, surface interpolation, radar analysis, advanced image interpretation, and orthorectification.



The Spatial Modeler uses GeoMedia<sup>®</sup> vector operators to perform analysis.

#### IMAGINE PROFESSIONAL

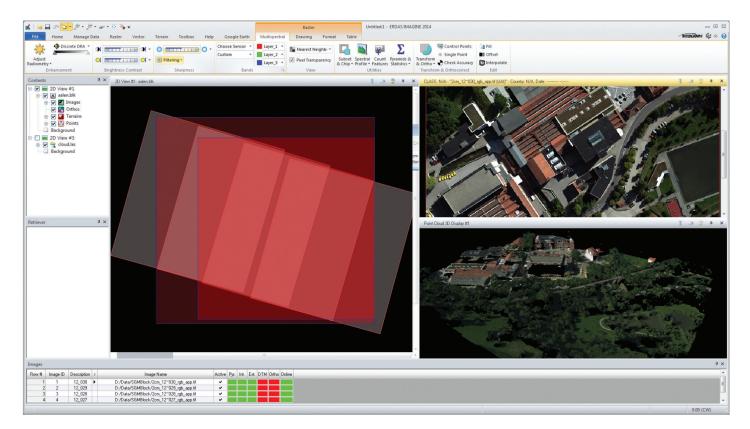
The most sophisticated software for geographic imaging, the Professional level of IMAGINE includes complex hyperspectral image analysis and advanced multispectral image classification and point cloud classification tools. It also includes graphical spatial data modeling, which is a unique capability for analyzing spatial data.

The robust Spatial Modeler is a dynamic, graphical, spatial data modeling environment that provides real-time feedback and previews. The modern interface includes extended analysis operators (including point cloud) as well as support for Python scripting. Authored models can be easily run in batch or published to a server (ERDAS APOLLO WPS).

A geographic imaging toolset that extends the capabilities of IMAGINE Essentials by adding more precise mapping with sensor model support and geospatial data processing functions.

# SELECTED FUNCTIONALITY OPTIONS

FUNCTIONALITY	ESSENTIALS	ADVANTAGE	PROFESSIONAL
Geographically connect files across viewers	•	•	•
Compress into MrSID, ECW, and JPEG2000 formats	•	•	•
Use more than 190 different image and GIS data formats	•	•	•
Rapidly display and roam through imagery vectors and LiDAR	•	•	•
Create and edit shapefiles	•	•	•
Create and print maps in more than 1000 different projected coordinate systems	•	•	•
Display and analyze Esri® Geodatabases	•	•	•
2D, 3D, and profile viewing of point clouds	•	•	•
Virtual mosaic of imagery	•	•	•
Polynomial-rectify images	•	•	•
Batch processing	•	•	•
Parallel batch processing		•	•
Orthorectify images		•	•
Advanced image mosaicking into a single image or image tiles		•	•
RGB-encode, edit, filter, merge, and split point cloud data		•	•
Interpolate surfaces		•	•
Perform spatial, radiometric, and spectral enhancement		•	•
Analyze radar images		•	•
Perform advanced multispectral image classification and point cloud classification			•
Perform graphical spatial modeling			•
Extract information from hyperspectral imagery			•



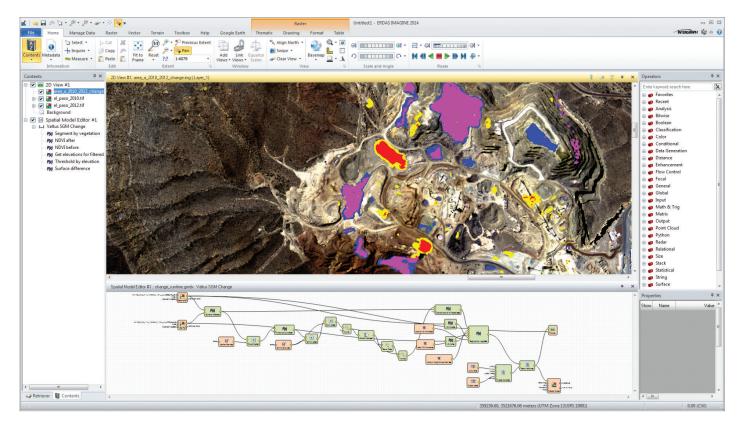
Access photogrammetry functionality directly in the ERDAS IMAGINE ribbon.

## DISCOVER THE POTENTIAL OF YOUR IMAGERY

With a wide array of tools enabling you to analyze data from virtually any source and present in formats ranging from printed maps to 3D models, ERDAS IMAGINE offers you one comprehensive solution for all of your geographic imaging and image processing needs. It simplifies and streamlines your production workflow, saving you time, money, and resources without sacrificing accuracy.

ERDAS IMAGINE fully enables the display, editing, and analysis of point clouds derived from LiDAR or generated from point correlation of stereo pairs. It also allows direct reading of LAS-formatted points clouds, enabling 2D/3D/profile viewing, symbolization, measurement, editing, and classification. Increase your accuracy using the flexible and comprehensive toolset of the standard in imaging software — ERDAS IMAGINE, from the inventors of commercial remote-sensing software. Additionally, Hexagon Geospatial provides an array of add-ons that expand the core functionality of ERDAS IMAGINE so you can tailor it to your organization's individual geospatial and business needs.

These innovative products include IMAGINE Photogrammetry, IMAGINE Expansion Pack, IMAGINE Auto DTM, IMAGINE Terrain Editor, and many others. For more information about these add-ons, please contact your Hexagon Geospatial sales representative.

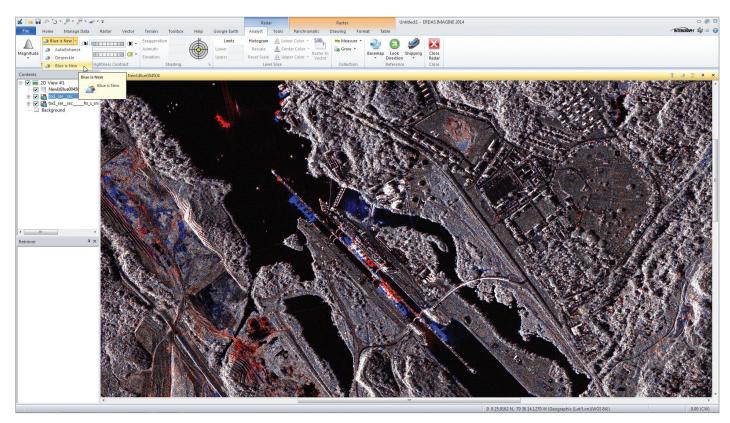


Find changes in a quarry using Semi Global Matching and the ERDAS IMAGINE Spatial Modeler.





View and Edit LiDAR data as well as point clouds created in IMAGINE Photogrammetry and ImageStation.



ERDAS IMAGINE offers a full set of dynamic tools for working with radar data, including automatic change detection.

# ERDAS IMAGINE offers you one comprehensive solution for all of your geographic imaging and image processing needs.



# ABOUT POWER PORTFOLIO

The Power Portfolio from Hexagon Geospatial combines the best photogrammetry, remote sensing, GIS and cartography technologies available. Flowing seamlessly from the desktop to server-based solutions, these technologies specialize in data organization, automated geoprocessing, spatial data infrastructure, workflow optimization, web editing, and web mapping.

The Provider Suite enables you to comprehensively manage and deliver volumes of geospatial and business data.



# ABOUT HEXAGON GEOSPATIAL

Hexagon Geospatial helps you make sense of the dynamically changing world. Known globally as a maker of leading-edge technology, we enable our customers to easily transform their data into actionable information, shortening the lifecycle from the moment of change to action. Hexagon Geospatial provides the software products and platforms to a large variety of customers through direct sales, channel partners, and Hexagon businesses. For more information, visit www.hexagongeospatial.com or contact us at marketing@hexagongeospatial.com.

Hexagon Geospatial is part of Hexagon, a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications. Hexagon's solutions integrate sensors, software, domain knowledge and customer workflows into intelligent information ecosystems that deliver actionable information, automate business processes and improve productivity. They are used in a broad range of vital industries. Hexagon (Nasdaq Stockholm: HEXA B) has more than 18,000 employees in 50 countries and net sales of approximately 3.3bn USD. Learn more at hexagon.com.

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