SEE MORE
The 2013 Geospatial Portfolio
Desktop
Geospatial for Smarter Decisions
POWERING THE GEOSPATIAL ENTERPRISE

More than ever before, we can sense the real world around us – from space, the air, and on the ground.

Let data work for you. Intergraph’s geospatial portfolio unites photogrammetry, remote sensing, and GIS within a streamlined enterprise system.

Its comprehensive spatial capabilities can be deployed on desktop, server, web, and mobile, to support every aspect of an enterprise’s geo-data and geo-processing needs.

Discover and exploit the wealth of information contained in data from any source, share it rapidly (and securely), and deliver it on demand as reliable and actionable information to drive smarter decisions.

ORGANISE - DELIVER - USE

Organise – enables the move from departmental silos to enterprise operation by coordinating and controlling access, use and update of shared information resources.

Deliver – provides the fastest means for users to find and access authoritative data. Ensuring work and decisions are based on the best and fullest information, avoiding inefficiencies, conflicts and errors.

Use – provides users best-in-class tools to create, update, analyse and apply spatial data to their work wherever and however it is needed.
ANNOUNCING INTERGRAPH’S
2013 GEOSPATIAL PORTFOLIO

AN INTEGRATED PRODUCT SUITE DELIVERING ENTERPRISE PHOTOGRAMMETRY, REMOTE SENSING AND GIS CAPABILITIES ACROSS DESKTOP, SERVER, WEB, AND MOBILE

In 2011 Intergraph presented the first links between its ERDAS and GeoMedia® product families, enabling users to coordinate data and tasks across photogrammetry, remote sensing and GIS.

The 2013 geospatial portfolio represents the full coordination of both product lines within a single product suite. Its comprehensive capabilities enable you to discover and exploit the wealth of information contained in data from any source, share it rapidly (and securely), and deliver it on demand as reliable and actionable information to drive smarter decisions.

The new portfolio maximises efficiency and productivity through streamlined workflows and expanded functionality, while the product delivery and licensing has been simplified and is consistent across the portfolio.

2013 GEOSPATIAL PORTFOLIO HIGHLIGHTS

2013 exploits functionality across products, for example: ERDAS IMAGINE® technology is now included in GeoMedia to provide powerful and streamlined image handling; Geospatial Portal delivers new Web clients for all server products; and all server products share a unified administration console. 2013 also integrates capabilities between products – for example, GeoMedia Desktop users can exploit ERDAS APOLLO catalogues to find and connect to enterprise data they need faster.

2013 has simplified packaging and licensing and delivers greater functionality at a lower price point. For example:

- all products are available in three levels of capability – essentials, advantage, professional
- all desktop products are delivered with concurrent licences
- all entry level server licences allow unlimited processes, unlimited CPUs and load-balancing on a single machine.

Finally, 2013 offers new and enhanced capabilities across the portfolio:

- New, simplified product packaging, with an annual, coordinated release across the portfolio
- Renaissance of GeoMedia® desktop products and streamlined ERDAS desktop products
- Geospatial desktop and server integration and interoperability
- Further raster and vector integration
- Next-generation spatial modelling technology
- Point cloud visualisation, analysis, and management
- A more robust and functionally enhanced GeoMedia Smart Client
- More cloud deployment options - all server products can now be deployed on Amazon EC2
- Common administration console, setup and licensing for geospatial server products
- An integrated thin client, Geospatial Portal
THE 2013 GEOMEDIA DESKTOP FAMILY

As with Intergraph’s ERDAS product families, GeoMedia 2013 is provided with three levels of functionality, enabling it to scale with your growing needs. Core functionality can be extended with four add-on modules that address specialist workflows.

**GEOMEDIA ESSENTIALS** - provides the foundation for universal data access across a wide range of data sources and formats allowing users to conduct ad-hoc, dynamic analysis and high fidelity rendering off vector feature data. The package also includes ERDAS IMAGINE Essentials, enabling users to harness the image preparation, analysis and interpretation capabilities of the World’s leading image processing product.

**GEOMEDIA ADVANTAGE** - adds the ability to work directly with gridded data to those of GeoMedia Essentials. This includes advanced hybrid analytical workflows that integrate vector feature data with gridded data such as; site location studies, hot spot analysis, and corridor planning. LiDAR data can be incorporated to create elevation data products (such as contours, shaded relief and colour-coded elevation) as well as enhanced map products. Users can also correct elevation data sets hydrologically allowing them to delineate watersheds, perform run-off analysis and determine flow directions.

**GEOMEDIA PROFESSIONAL** - extends the capabilities of Advantage by increasing productivity through streamlined feature capture and editing backed-up by comprehensive quality assurance tools for feature geometries, attribution and connectivity. Further capabilities include the management of complex linear networks as well as managing multiuser access to data and analysis and review of feature data version history over time. GeoMedia extensions provide additional functionality for specialist workflows that can be added at any-time:

- **GeoMedia 3-D** - enables users to visualise, navigate, analyse and interact with 3D data directly within GeoMedia.

- **GeoMedia Mapping Manager** - streamlines the creation of high-quality cartographic maps and series mapping products.

- **GeoMedia Transportation Manager** - provides advanced data modelling and analysis tools that underpin efficient and effective management of highway, rail networks and linear assets.

- **GeoMedia Database Manager** - applies enterprise business rules to ensure users create and maintain valid and accurate data.
NEW RIBBON INTERFACE 
AND CUSTOMISATION

GeoMedia 2013 gets a new streamlined and modern ‘ribbon’ user interface as used by Microsoft Office products and ERDAS IMAGINE. The ribbon groups commands logically, making it easier to locate and utilise more of the rich functions delivered with GeoMedia. For users who prefer to stick with the old interface, 2013 can operate in ‘Classic’ mode.

HIGH QUALITY MAP LABELLING WITH EMBEDDED MAPTEXT TECHNOLOGY

“MAP LABELLING NEVER LOOKED SO GOOD” - SUSAN SMITH, GIS CAFÉ

A new OEM agreement with MapText Inc. means the market-leading map labelling functionality of GeoLabel Pro is now embedded in the GeoMedia product family. The ability to better position and render labels using rules and conflict resolution strategies saves users valuable time and generates better maps. Choose between dynamic labels that automatically reposition as users pan and zoom, or static which allows individual labels to edited to further improve results.

NEW DATA SERVERS

A Microsoft SQL 2012 Spatial data server allows users to connect to the latest SQL database. Along with SQL Server 2012, support for SQL Server Azure will also be added to the choice of connections.
FIND AND CONNECT TO DATA FASTER – ERDAS APOLLO INTEGRATION
GeoMedia 2013 utilises the new ERDAS APOLLO catalogue explorer to access structured and “unstructured” raster and image files directly in the MapWindow. Data can be located through a variety of search criteria using any combination of keywords, spatial extent, time and data. Before displaying in the MapWindow, users can preview results - including the image metadata - in grid, detail, or thumbnail views.

ENHANCED IMAGE HANDLING – ERDAS IMAGINE INTEGRATION
GeoMedia 2013 begins to exploit raster capabilities of ERDAS IMAGINE.
The initial integration includes the new Image Chain functionality, which includes contrast, brightness, sharpness, and tone adjustment and warp enhancement. Image adjustments can be applied to selections of one or more images, rather than having to apply them individually to every image in a feature class or legend entry.

FASTER DISPLAY
New client-side warehouse connection caching provides dramatic performance boosts when accessing and displaying large data sets (features classes with more than ½ million instances). Users have the ability to define the location of the cache, which is update automatically, as needed, for example when edits are performed or when a warehouse is reopened.
REMOTE SENSING
Intergraph’s remote sensing products enable you to process data to enhance visibility of certain image elements and analyse it to extract information that cannot be detected from visual inspection alone. These products are useful when you need to: Orthorectify raster imagery; Detect changes between images; Analyse imagery using spectral signatures; Process and analyse radar data; Classify imagery; Create presentation products; Convert files formats.

ERDAS IMAGINE
ERDAS IMAGINE® performs advanced remote sensing analysis and spatial modelling to create new information. In addition, with ERDAS IMAGINE, you can visualise your results in 2D, 3D, movies, and on cartographic-quality map compositions. The core of the ERDAS IMAGINE product suite is engineered to scale with your geospatial data production needs. Optional modules providing specialised functionality are also available to enhance your productivity and capabilities.

- IMAGINE Essentials® is the entry-level image processing product for map creation and simple feature collection tools.
- IMAGINE Advantage® enables advanced image registration, mosaicking and image analysis, and change detection capabilities.
- IMAGINE Professional® includes a production toolset for spectral and radar processing, and spatial modelling.

ERDAS ER MAPPER
Providing advanced image processing and compression capabilities, ERDAS ER Mapper is widely used in a variety of industries including oil, gas and mineral exploration. ERDAS ER Mapper allows you to extract quantitative information and visualise, enhance and combine images for a broad array of applications.
WHAT’S NEW FOR IMAGINE 2013

NEW TOOLS AND TECHNOLOGY FOR HANDLING POINT CLOUDS

ERDAS IMAGINE 2013 enables you to visualise, analyse, and manage your point clouds more thoroughly and effectively. New visualisation technology allows you to simultaneously view point clouds in 2D, 3D and as a user-specified profile that can reveal cross sections through point clouds. There are also tools to classify, subset and filter your point data, as well as RGB encode it (e.g. use an orthophoto of the same area to add colour to the point data).

NEXT-GENERATION SPATIAL MODELER

The next-generation Spatial Modeler features an all-new, modern interface and provides real-time preview of results. In addition to the ERDAS IMAGINE raster operators, the new Spatial Modeler incorporates GeoMedia vector and grid operators to greatly extend the problem-solving capability. Python scripting allows users to extend the utility of the Modeler and even incorporate operators from other software (such as ArcGIS).

NEW EXPANDED SENSOR SUPPORT AVAILABLE THROUGHOUT ERDAS IMAGINE

Support for additional sensors, including the VisionMap A3 Super Large Format (SLF) Model, the Pleiades Rational Polynomial Coefficients (RPC) Model, and the DEIMOS RPC Model. These sensor models are also available throughout ERDAS IMAGINE® 2013.
NEW TOOLS IN THE IMAGINE RADAR MAPPING SUITE™

IMAGINE Radar Mapping Suite provides new tools that enable easier, more thorough use of radar data resources. Many of the radar tools are now presented using a ribbon interface for faster and easier access. Other features include real-time ship tracking with Automatic Identification System (AIS) feeds, on-the-fly geo-referencing, and quick and easy detection of floods or spills.

BETTER RESULTS FOR OBJECT-BASED FEATURE EXTRACTION

IMAGINE Objective uses a new segmentation algorithm, FLS, and provides you with the ability to fine-tune the creation of segments based on shape, size, texture, and spectral value.

ADDITIONAL INDICES AND A STREAMLINED INTERFACE FOR WORKING WITH INDICES

ERDAS IMAGINE 2013 includes more than 35 of the most commonly used indices (band algebra formulas that enable easier information extraction from imagery), and the interface used to work with indices is now streamlined. The indices work with all of the sensor models supported by ERDAS IMAGINE, and the indices tool is connected to the Spatial Modeler for easy editing.
PRODUCTION OR PROJECT PHOTOGRAMMETRY

Intergraph’s ImageStation production photogrammetry products rapidly geo-reference and orthorectify massive volumes of incoming spatial data to create or update large spatial databases. They are ideal for commercial photogrammetry or production mapping customers who need to deliver large quantities of data quickly.

The LPS project photogrammetry products are ideal for users who work with projects below the scale of those served by ImageStation. They will typically work with raw imagery and varied types of data (such as raster, vector, GIS, and LiDAR), often also performing downstream processing, such as change detection or image classification.

LPS

LPS is a powerful photogrammetry system available in a user-friendly environment that guarantees results, even for photogrammetry novices. LPS provides tools for delivering full analytical triangulation, digital terrain model generation, orthophoto production, mosaicking, and 3D feature extraction. Automating precision measurement and including flexible operations such as terrain editing and feature extraction, LPS increases productivity while ensuring high accuracy. With its tight integration with ERDAS IMAGINE®, LPS is the ideal photogrammetric package for projects involving varied types of data and further processing and analysis of airborne and satellite imagery.

IMAGE STATION

ImageStation® is designed for high-volume commercial photogrammetry and production mapping customers who need to process large quantities of raw spatial information into an actionable or exploitable format. The ImageStation® software suite enables digital photogrammetry workflows, including project creation, orientation and triangulation, 3D feature collection and editing, digital terrain model (DTM) collection and editing, and orthophoto production using aerial and satellite imagery. ImageStation is specially designed for high-volume commercial photogrammetry and production mapping customers who need to move large quantities of raw spatial information to an actionable or exploitable format.
LPS - WHAT’S NEW FOR 2013

FASTER, EASIER ACCESS TO ALL LPS TOOLS AND FEATURES
All LPS tools and features are now presented within the ERDAS IMAGINE ribbon, with tighter integration with the ERDAS IMAGINE tools. This simplifies workflows for project photogrammetry users who work with smaller quantities of raw imagery, use varied types of data (such as raster, vector, GIS, LiDAR, geo-referenced tables), and who will likely perform further processing, such as change detection or image classification.

ENHANCED TERRAIN HANDLING
The commonly used LTF terrain file format can now store more points. In addition, there are now overviews for an LTF file, enabling faster handling of large LTF files.

EXPANDED SENSOR SUPPORT
Support for additional sensors, including the VisionMap A3 Super Large Format (SLF) Model, the Pleiades Rational Polynomial Coefficients (RPC) Model, and the DEIMOS RPC Model. These sensor models are also available throughout ERDAS IMAGINE® 2013.

ADDITIONAL INPUT DEVICE CHOICES
Support for the Z/I Mouse (in addition to Topomouse) provides you with additional input device choices.

IMAGE STATION - WHAT’S NEW FOR 2013

DENSE TERRAIN SURFACE EXTRACTION FROM LEICA RCD30 AND Z/I DMC IMAGERY
ImageStation Automatic Elevations – Extended (ISAE-Ext) is now available to generate dense point clouds using pixel correlation on stereo imagery from Leica RCD30 and Z/I DMC sensors. It uses a Semi-Global Matching (SGM) algorithm and also RGB encodes the point cloud output for image-like quality.
DISTRIBUTABLE PROCESSING IN IMAGESTATION AUTOMATIC ELEVATIONS

ImageStation Automatic Elevations (the automatic terrain extraction module of ImageStation) can now use Condor to distribute large tasks among multiple computers and cores, significantly reducing processing time.

ENHANCED SUPPORT FOR INGESTING SURFACES (MORE FORMATS, BETTER PERFORMANCE)

ImageStation now includes native support for additional terrain formats (ArcGrid, ADF, XYZ). In addition, performance is better when rendering terrain or probing to determine the z-value at given x and y coordinates.

ACCESS TO ADVANCED AERIAL TRIANGULATION AND VISUAL ANALYSIS TOOLS IN ORIMA

You can now launch ORIMA from the interface of ImageStation Automatic Triangulation. This provides easy access to ORIMA’s advanced aerial triangulation and visual analysis tools.

EXPANDED QUALITY CONTROL CAPABILITIES

The multi-user Ortho QC tools (PixelQue) are packaged with OrthoPro providing extra value at no additional cost.
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