More than ever before, we can sense the real world around us – from space, the air, and the ground. We can also make sense of captured data with clever algorithms for data fusion, feature extraction, and integration with business intelligence. Advances in technology extend the use of geographic data and information, empowering millions to billions of individuals to be publishers and users of location-specific data and information. In addition, there is now a synthesis of desktop, web, and mobile applications with the ability to rapidly transform raw data into actionable information and deliver it to any location. This includes on-demand, web-based geoprocessing, integrated vector and raster-based spatial modeling, change detection, and data revision-based workflows based on the fusion of imagery, point cloud, and GIS data.

The ability to digitally describe and understand the real world with faster tools that not only measure accurately, but also provide more frequent and real-time updates, opens new doors.
The exploitation and usage of such data for personal benefit brings a new era in socializing geography beyond the traditional geospatial genres. Intergraph’s geospatial products exploit the wealth of content collected from a variety of sources. The portfolio includes the industry’s leading desktop GIS, remote sensing, and photogrammetry software, as well as the synthesis of these technologies in server-based products specializing in data management, automated geoprocessing, spatial data infrastructure, workflow optimization and web editing, and web mapping.

No product on the market today provides more classification solutions than ERDAS IMAGINE.
Authoritative Image Exploitation
Ingest, visualize, manipulate, analyze, and extract intelligence from satellite and airborne imagery, terrain, and point data for image processing, photogrammetry and/or LiDAR workflows.

PHOTOGRAMMERY
Intergraph’s photogrammetry products enable you to take the first steps to connect imagery to locations on the earth’s surface and create accurate representations of the earth from remotely sensed data.

Production photogrammetry products rapidly georeference or orthorectify massive volumes of incoming spatial data so you can create or update large spatial databases. They are ideal for commercial photogrammetry or production mapping customers who need to quickly deliver large quantities of data.

Project photogrammetry products are ideal for users who work with smaller quantities of raw imagery and varied types of data (such as raster, vector, GIS, and LiDAR), and who will likely perform further processing, such as change detection or image classification.

ImageStation® 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.

The footprint viewer in ImageStation shows all the available information visually that is stored within the project. Any missing information will either not be shown or default to red as opposed to green as being active.
It is 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.

ImageStation within the GeoMedia® context helps mapping professionals create continuous, topologically accurate, and attributed map layers stored in a variety of open formats. This integration enables you to streamline the process of creating and/or updating your GIS using photogrammetric techniques and directly store your data as an asset within a corporate database.

**LPS** is a complete suite of photogrammetric production tools for triangulation, generating terrain models, producing orthomosaics, and extracting 3D features. Automating precision measurement and including flexible operations such as terrain editing and feature extraction, LPS increases productivity while ensuring high accuracy. Integrated with the ERDAS IMAGINE product suite, it offers a variety of functional add-on modules. LPS adapts to your specific business needs, enabling a seamless, process-driven workflow.

**ERDAS Extensions for ArcGIS®** are geared toward stereo viewing and feature collection. With Stereo Analyst® for ArcGIS, you can create and revise a comprehensive database of feature data. Stereo visualization improves the interpretation of images and allows for more precise collection leading to greater accuracy in your resulting layers. Tightly integrated with ArcGIS, Stereo Analyst, Feature Assist (for simplified rooftop collection) and Terrain Editor enable stereo collection inside a familiar environment.

The Stereo Point Measurement Tool allows for easy collection of GCP and tie points using a stereo viewer, mono viewer or both with the tri-viewer.
Easily blend a landcover classification into a Color Infrared (CIR) image. The vector line represents a planned new corridor.

**REMOTE SENSING**

Intergraph’s remote sensing products enable you to process data to enhance visibility of certain image elements and analyze 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 two or more raster images
- Analyze imagery using spectral signatures
- Process and analyze radar data
- Classify imagery

- Create presentation products (Microsoft® Word and PowerPoint® documents) with your imagery
- Convert files

**ERDAS IMAGINE®** performs advanced remote sensing analysis and spatial modeling to create new information. In addition, with ERDAS IMAGINE, you can visualize 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 –
from IMAGINE Essentials, through IMAGINE Advantage, and on to IMAGINE Professional. Optional modules providing specialized functionalities 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 modeling.

**ERDAS ER Mapper** provides advanced image processing and compression capabilities widely used in a variety of industries, including oil, gas, and mineral exploration. ERDAS ER Mapper allows you to visualize, enhance, and combine images for a broad array of applications. Extracting the quantitative information you need, ERDAS ER Mapper makes your data more meaningful to solve business problems.

A planned road intersection is linked to a 3D view where the image is draped over LiDAR data.
GeoMedia is a powerful GIS management package that enables you to realize the maximum value from your geospatial resources, integrating them to present clear, actionable information. It provides simultaneous access to geospatial data in almost any form, unifying them in a single map view for efficient processing, analysis, presentation, and sharing. GeoMedia’s intuitive, dynamic analysis functionality supports powerful modeling and “what-if” analysis by concatenating analysis processes. Results of one operation feed directly into the next process, and results are updated automatically in response to data changes.

**Dynamic queries and functional expressions are just some of the capabilities in GeoMedia that allow users to conduct simple to complex analysis and compare the results.**

**Powerful GIS Data Production & Analysis**
Generate and update vector layers, perform dynamic spatial analysis and reporting, and automatically update maps and manage data and map production.

**GIS DESKTOP**
With our GIS desktop offerings, you can query multiple GIS and combine different geospatial resources into a single map view to obtain a clear understanding of the real-world scenarios they represent. The links between our remote sensing and GIS products enable GIS updates from your raster imagery, improving the accuracy and relevance of your data resources. Support for native spatial data types without middleware enables you to exploit the power of your corporate database, from resilience and security to transaction management.
GeoMedia 3D will ingest a variety of open source and commercial 3D models. Here we have Lucas Oil Stadium, home of Super Bowl XLVI, and the Indianapolis skyline. Models courtesy of Pictometry

GeoMedia’s stable, robust technology is actively used by organizations throughout the world. Whether your organization has a single user or hundreds distributed across the enterprise, GeoMedia’s flexible architecture maintains a high degree of performance and reliably meets your demands. Capitalize on the coordination between GeoMedia and ERDAS IMAGINE to create vector layers based on accurately processed raster imagery. Based on open standards from the Open Geospatial Consortium (OGC®) and International Standards Organization (ISO), GeoMedia integrates well with other business systems to easily introduce location-based information into your workflows.

- **GeoMedia Essentials** provides tools for querying and analyzing geospatial data. In addition, IMAGINE Essentials is included for simple image preparation.
- **GeoMedia Advantage** provides a full GIS analytical package with the Essentials product as well as Geomedia Grid.
- **GeoMedia Professional** contains the Advantage product, plus all feature collection, editing and quality control functionality.
As the Earth changes and our ability to capture change expands, organizations have to be agile and innovative to accommodate the growing volumes of data. Once data is organized and managed, you need to get your geographic information to customers. New business opportunities exist for delivering the data, along with information products derived from the original source. Today, many organizations need to implement an online strategy and business model based on the update frequency of their content, the quality of the data, and the derivative and increased value extracted by merging multiple sources of data.

Intergraph’s geospatial server portfolio provides modern, SOA-based enterprise solutions satisfying a wide range of customers who need to manage and deliver geospatial data, services, and workflows to a variety of desktop, web, and mobile applications. These solutions provide the industry’s most advanced and comprehensive geospatial functionality, with innovative products to meet mapping users’ needs across all geospatial markets. From comprehensive data management in ERDAS APOLLO, to high-performance web-enabled maps and geoservices in GeoMedia WebMap, to the optimized geospatial business workflows of GeoMedia Smart Client, to a standards-compliant spatial data infrastructure (SDI) in Geospatial Portal, these scalable offerings are integrated and support the Dynamic GIS by offering a complete solution for geo-enabling your entire enterprise.
ERDAS APOLLO is an enterprise-class data management, analysis, and delivery solution that provides remarkable business value. ERDAS APOLLO is scalable through clustering to meet your organization’s growing needs. From a remarkably fast image server to a comprehensive data management system, ERDAS APOLLO is the most advanced geospatial enterprise solution, ensuring unprecedented performance even when handling the largest data archives.

- **ERDAS APOLLO Essentials** is a low-cost image delivery system providing the fastest image delivery over the web, including high-performance imagery streaming protocol ECWP.
- **ERDAS APOLLO Advantage** enables you to manage and distribute massive amounts of data. This includes efficiently cataloging and quickly sharing data throughout the enterprise and into any client or application.

### Rapid Publishing
Create and publish data products and spatial models that can be accessed and executed by consumer users, on demand, from 2D and 3D clients.

### Robust Data Management & Delivery
Management of massive amounts of geospatial data, including discovery, describing, cataloging, analyzing, and delivery.

From thin client front ends, users can incorporate elevation data in a line-of-site analysis to determine multiple observer visibility.
**Dynamic Geoprocessing**
Execute robust and complex on-the-fly geoprocessing (such as change detection, site analysis, or elevation change) through the OGC Web Processing Service (WPS) implementation.

- **ERDAS APOLLO Professional** provides interoperable, on-demand geoprocessing of gridded geospatial data. You can perform analytics to create, visualize, and extract geospatial information products from 2D and 3D clients.

GeoMedia Smart Client supports the ability to dynamically change the user interface to match user roles or specific workflow steps, across departments and functions.

**Web-based Workflow Optimization**
Utilize highly configurable workflows leveraging advanced geospatial functionality via intuitive, map-based tools.

GeoMedia Smart Client makes your organization progressive, enabling you to seamlessly integrate geospatial processes into configurable workflows. Your end users can leverage advanced geospatial functionality via simple-to-use, map-based tools, streamlining their processes and honing their expertise. These vibrant geospatial business workflows provide a level of sophistication not supported by legacy, out-of-the-box software products. With GeoMedia Smart Client, workflow optimization and intuitive web editing will be a reality embraced across your organization.
GeoMedia Smart Client meets the needs of multi-disciplinary operations, affordably enabling users in the organization to access and use rich geospatial data in their business processes. Instead of using different vendors and tools to build configurable workflows for each workgroup within an organization, GeoMedia Smart Client provides for technology needs across the enterprise. With GeoMedia Smart Client, you create a single deployment that can be configured for an unlimited number of applications – making it the perfect GIS for a smarter organization.

- **GeoMedia Smart Client Essentials** provides high-end vector redlining functionality and support for an unlimited number of users to display raster and vector maps, analyze and query data, print, and utilize measurement and dimensioning functions. Advanced client and server geo-caching is provided for both raster and vector data, ensuring high performance.

- **GeoMedia Smart Client Advantage** contains all of the features and functionality of the Essentials product, plus the ability to utilize predefined business process workflows and edit data. The additional Workflow Manager - Runtime module enables customers to run pre-built workflows, edit attributes or capture and change spatial data on the web client and push the changes back to the server database.

- **GeoMedia Smart Client Professional** contains all of the features and functionality of the Advantage product, plus the Workflow Manager – Editor for developing workflows or revising the structure, process, and forms of current ones.

Government and state transportation departments use GeoMedia Smart Client for land planning and management, railway and roadway asset management, and map production.
GeoMedia WebMap is a fully scalable server solution for building and deploying web services and websites. Using GeoMedia desktop as a publishing platform, you can easily create high-performance web applications enabling real-time enterprise data access and sophisticated analysis. Available in three tiers, GeoMedia WebMap can include powerful linear referencing and analysis capabilities, including routing and dynamic segmentation web services.

- **GeoMedia WebMap Essentials** enables users to publish and manage volumes of structured geospatial data.
- **GeoMedia WebMap Advantage** contains all the features and functionality of the Essentials product, plus the Geospatial Portal.
- **GeoMedia WebMap Professional** contains all the features and functionality of the Advantage product, as well as the ability to read and write to data servers and utilize advanced geoprocessing capabilities such as linear referencing and routing.

Geospatial Portal is a browser-based web portal that can be used as a mechanism for finding, viewing, querying, and analyzing geospatial data published by Intergraph products and/or other standard web services. It acts as a client for web mapping applications, such as city portals, tourist information or spatial data infrastructure (SDI) services. Geospatial Portal integrates multiple data sources into a single map view, providing easy navigation and interaction. It provides ISO/OGC compliance and works with INSPIRE discovery, view, download and transformation services.

Use GeoMedia WebMap to allow customers of your website to easily visualize answers to their geospatial queries.
Geospatial SDI is an interoperable and scalable spatial data infrastructure for cataloging and delivering enterprise geospatial data over the web. Demand for SDI has grown rapidly, driven by both legislation obliging public bodies to publish data and by private sector organizations seeking to increase the use of their existing data holdings. Ultimately, SDI implementations provide a mechanism for increased collaboration with partners and customers, broadening a potential user base. Geospatial SDI is for data providers that need to manage and serve secure or licensed information using standards-based web services (such as ISO/OGC or INSPIRE). The product offers a rich set of web services, extending those offered in GeoMedia WebMap and ERDAS APOLLO to the full set of services required of SDI implementations.

**WHY INTERGRAPH?**
As you can see, our portfolio provides integrated geospatial systems, harnessing the traditional domains of GIS, remote sensing, photogrammetry, and mapping with applications across the enterprise. Sparked by change and fueled by data and information captured from a variety of sensing devices, raw source content is fed through the geospatial information life cycle, processed with geospatial software, shared rapidly (and securely), and ultimately delivered on-demand as reliable and actionable information to users in the office, field, and across the globe in real time.

Intergraph’s software addresses needs across government and transportation, defense and intelligence, utilities and communications, and public safety and security organizations. As change happens, users in these critical industries can derive real-time information to protect lives, property, and infrastructure. With leading technologies, Intergraph has the market ingredients, coupled with a revolutionary strategy to fulfill the increasing demands for information portraying our changing earth.