Today’s image analysts are required to analyze an ever-increasing volume of imagery from many varied and complex sources. As the amount of collected sensor data increases dramatically in the next few years, better and faster tools will be needed to properly analyze data.

The Intergraph® Imagery Soft Copy Search application enables quick and accurate broad area search operations of vast landscapes of digital imagery. Its ability to fuse geospatial vector, imagery, and elevation data in one seamless environment enriches the analysis process by allowing you to visualize, query, and analyze information from these various sources in one application. Imagery Soft Copy Search streamlines this multi-source fusion, allowing you to work more quickly and confidently and with increased effectiveness. Data servers and Open Geospatial Consortium (OGC®) interfaces enable you to tap into a rich and varied set of available geospatial intelligence sources, enabling you to identify and exploit geospatially related images using electronic light table functionalities to enhance, chip, mensurate, and annotate image elements.

We combine the best functionality from our partners with our own products to provide the most advanced imagery analysis application.

WITH IMAGERY SOFT COPY SEARCH, YOU CAN:
- Directly connect to and process a variety of imagery, elevation, and geospatial feature data sources, all in their original formats
- Geo-fuse geospatial vector, image, elevation, and geospatial tabular data in one seamless environment
- Directly connect to Web-based sources of geospatial content for live data feeds of weather, vehicle traffic, and other types of data via use of OGC Web Services
- Easily fly through rich 3D environments
- Perform integrated terrain and spatial analysis
- Search broad areas using virtual mosaics
- Exploit imagery using robust electronic light table tools
- Chip out and annotate image sections for reports and documentation
- Use geospatial feature data, such as points of interest, road networks, convoy routes, flight paths, and blast zones, to automatically contain imagery searches to paths and areas defined by these features
- Visualize, query, and analyze information from various data sources

GEOSPATIAL FUSION
With more sensor data available, it is crucial to have tools that process data more efficiently. Geospatial fusion helps you maintain focus by expertly selecting the imagery you need to complete an assigned task. Raster backdrops consisting of scanned maps and orthorectified imagery provide broad area context. Elevation data allows the restriction of search areas based on terrain characteristics and supports viewshed analysis. Vector data enables the use of named, real-world features as guides in the search process—all fused within Intergraph’s geospatial map window.

When Imagery Soft Copy Search is integrated with Intergraph’s or third-party geospatial content management systems, you can use footprints and metadata to help you select the appropriate imagery data. Intergraph GeoMedia®’s powerful spatial filters let you limit information to a specific area, and attribute-based queries allow you to further reduce the result set, improving your efficiency when working with large volumes of geospatial information. Sophisticated spatial queries and operations can also provide further dynamic refinement.

VIRTUAL MOSAIC SEARCHES
A key differentiator of this application is the virtual mosaic dynamically constructed from standard formatted files such as GeoTIFF and NITF. Similar to the way producers of orthorectified images and imagery products manually create large mosaics from several source images, Imagery Soft Copy Search creates a virtual mosaic of the selected imagery on-the-fly for immediate analysis.

Once you’ve created a virtual mosaic, Imagery Soft Copy Search provides efficient tools for searching the mosaic, including a smooth, jitter-free roam. Not only can you perform a complete search of the virtual mosaic,
but you can also use linear or area features to help guide the search. While navigating the virtual mosaic, the location is tracked in the GeoMedia map window. The progress of one or more search tasks are also tracked by the snail trail, which provides visual confirmation of the area searched and orients multiple analysts during a coordinated imagery search activity.

**ELECTRONIC LIGHT TABLE CAPABILITIES**

A full complement of electronic light table tools makes Intergraph’s Imagery Soft Copy Search application a truly integrated solution.

- **Image Exploitation** – Imagery Soft Copy Search allows you to send a set of point features to virtual mosaics or images. Known as “points of interest,” these points provide a review of specific locations to quickly determine if any significant changes are present. You can interactively create additional points of interest, and save these as geospatial data that can be used for future reference.

- **Image Chip Extraction** – With Imagery Soft Copy Search, you can extract selected sections of images and save them to new files. These image chips include the georeferencing information derived from the source file, enabling you to easily place these new files in the correct geographic context. A rich set of annotation tools allows you to explicitly document items of interest within the image.

- **Image Enhancement** – Included are a large number of image enhancement operations you can apply to improve image appearance. For example, Imagery Soft Copy Search’s Image Sampler instantly provides a preview so you can view the effects of these operations without processing the entire image. Once you’ve determined the desired operation, you can apply it to the entire image, or a selected region of interest, with a simple click of the mouse.

- **Mensuration Tools** – These tools, based on imagery acquisition data or relative measurements, allow you to specify the relationship of visual elements. These measurements, along with text and vector annotations, enable communication of knowledge to future users of the image products. Templates provide you with reports in predefined layouts so information is communicated in a clear and concise manner.

- **Image Comparison** – When you need to compare a current image to previous images to detect changes over time, the Imagery Soft Copy Search application’s versatile image comparison functions help to determine the historical context of the data. Blending, flickering, and vertical and horizontal wiping accentuate changes in the most apparent manner.

**COMPONENTS OF IMAGERY SOFT COPY SEARCH**

The Intergraph Soft Copy Search application is comprised of several Intergraph and third-party products, which include:

- **Image Scout**
  - GeoMedia Professional
  - GeoMedia Grid
  - GeoMedia Image
  - GeoDex
- **Image Scout Stereo Viewer**
- **Skyline Software Systems’ TerraExplorer® Plus**
- **Overwatch Image Light Table (ELT 5500)**

**CONDUCT AUTOMATIC SEARCHES DRIVEN BY A LINEAR FEATURE.**

**ABOUT INTERGRAPH**

Intergraph Corporation is the leading global provider of spatial information management (SIM) software. Security organizations, businesses and governments in more than 60 countries rely on the company’s spatial technology and services to make better and faster operational decisions. Intergraph’s customers organize vast amounts of complex data into understandable visual representations, creating intelligent maps, managing assets, building and operating better plants and ships, and protecting critical infrastructure and millions of people around the world.

For more information, visit www.intergraph.com.