SPOTLITE™ is a complimentary extension for ELT/5500 offering powerful 3D display and visualization within the familiar 2D imagery workspace. Designed specifically for mission planning and mission rehearsal activities, SpotLite enables analysts to quickly produce sophisticated 3D visualizations using national and commercial high resolution imagery.

Upgrade to SpotLite Pro for an expanded set of 3D visualization and exploitation capabilities.

V-TRAC™ is a complimentary extension, which enables analysts to receive and analyze full motion video collections. Designed for the Intelligence Surveillance & Reconnaissance (ISR) community, V-Trac Basic provides improved geospatial accuracy and workflow to operational users of motion imagery by leveraging Geospatial Solution’s core competencies in photogrammetry, large data file management, and performance.

Upgrade to V-Trac Pro to utilize the Report Editor and Image Editor tools to automate and speed report creation.

GEOCATALOG™ is a complimentary data discovery and management extension for ELT/5500, which enables analysts to easily create searchable database libraries on their computer. GeoCatalog provides powerful content management tools for querying and retrieving imagery, motion video, maps, and other geospatial data.

Upgrade to GeoCatalog Enterprise web solution to achieve greater productivity. Search for data using the GeoCatalog Discovery Web Client, GeoCatalog Desktop, or other 3rd party discovery tools. The Discovery Client includes a management portal and administrative tools.

COMPREHENSIVE ANALYSIS FOR THE GEOSPATIAL PROFESSIONAL

ELT/5500, the flagship of the ELT/Series software suite, fuses traditional image exploitation functionality, geospatial analysis and 3D-visualization in a single easy-to-use geospatial-intelligence application. Designed specifically to support the demanding requirements of geospatial analysts and the varied missions of geospatial professionals, ELT/5500 enables analysts to produce timely, relevant and accurate Geospatial Intelligence products.

Although advanced in capability, ELT/5500 is very intuitive and easy-to-learn. The contemporary ribbon-based toolset offers a streamlined contextual presentation to maximize efficiency. ELT/5500 includes a comprehensive set of tools to support specific workflows all while offering full flexibility on how to create, manage, and analyze data.
The intuitive graphical user interface features large, customizable icons that are grouped logically to support common image analysis workflows, improving discoverability and reducing clicks to efficiently complete mission critical tasks. GEOINT documents are managed via a dockable tab system, allowing analysts to easily view and organize multiple related image files. Because of EIT’s intuitive design, analysts are able to make immediate contributions to mission objectives increasing overall organizational productivity.

**GALLERY**

The Gallery displays a thumbnail image for each open document. Users can determine different document types by the icon assignment and alternate between documents by clicking the thumbnail. Document specific tasks can also be executed using the thumbnail view for each open document. Users can maximize workspace so analysts can alternate document types by the icon assignment and manage via a dockable tab system, allowing analysts to easily view and organize multiple related imagery files. Because of EIT’s intuitive design, analysts are able to make immediate contributions to mission objectives increasing overall organizational productivity.

**3D VISUALIZATION (SPOTLINE EXTENSION)**

- One-Click 3D Terrain Display
- Fly Through or Drive Through Simulation
- Use of View Tools
- Annotation Support
- 3D Measurement (SpotLine Pro)
- Point Cloud Visualization (SpotLine Pro)
- Stand-Up 2D-Building (SpotLine Pro)
- Customizable Wall/Plain Textures (SpotLine Pro)
- 3D Symbol Library (SpotLine Pro)
- Float and Extrude Geometries (SpotLine Pro)
- Rotated Distance Profile Spheres (SpotLine Pro)
- Export/Clipboard to 3D PDF (SpotLine Pro)

**DATA CATALOGING (GEOCATALOG EXTENSION)**

- Federated Access to Stored Geospatial Data
- Searchable Database Library
- Modifiable Database Schema
- Single Query Searches
- Query by Region, Time, File Type, etc.
- Gallery Display and Full Image Preview

**OTHER FEATURES**

- Add-In Support
- COM-based API
- 120+ Interfaces, 2000+ Methods/Properties
- C#/.NET/VBScript Samples
- Google Earth™ Interface
- Enhanced Template Support
- Publish To Microsoft PowerPoint®
- Web Map Service (WMS) Support
- Web Tile Service (WMTS) Support
- Access® Database Support
- Customizable Web Reports

**OVER 40 SUPPORTED FORMATS**

- ADI
- AGRS
- AUBS
- BMP
- GIF
- PNG
- JPEG
- J2K
- JP2
- NITF 1.0
- NITF 2.0 & 2.1
- PDF
- QuickBird Tile
- RadiantView 2
- RAW
- EIT Template
- RemotEye Template
- Shopliff
- Edit
- SKY/VO
- SunRaster
- TanDEM-X
- TerraSAR-X
- TIF/GTiff/BigTIFF
- VRP
- Vector Query
- WMZ
- WMKS

EIT’s 5500 supports different document types for viewing, managing, and manipulating data, such as comparison, stereo, and geo mosaics to accommodate the common workflow requirements. All documents and associated objects are organized and managed by the Explorer tool window. This window provides a central location for performing tasks. In addition to the Explorer, the Mensuration, Cursor Tracking, and Symbols tool windows offer commonly used tools. Other tool windows include the Gallery and DRA. The Gallery, located at the bottom of the interface by default, offers a thumbnail view for each open document. Users can determine different document types by the icon assignment and alternate between documents by clicking the thumbnail. Document specific tasks can also be executed using the shortcut menu. The DRA tool window lets users view and Adjust DRA settings. All tool window display options are fully customizable and can be docked, tabbed, shown side-by-side, and more to offer full control over the interface.

**IMAGE COMPARISON**

- Blend
- Colored Difference and Color Queues
- Tiler
- Vertical/Horizontal Slice
- Two/Four/Three Left/Right/Top/Bottom
- Reposition Layer

**ANNOTATION FEATURES**

- Advanced Text and Graphic Support
- Text, Markers, Polyline, Polygons, Callouts
- Grids
- Text Sequencing
- Metadata Lookup Labels
- Burn In/Flatten Options
- Floating Annotations
- Grid
- Magnifier
- Symbol Library Support
- Scalable
- Counter/Report Features
- Locator and Indicator Display Capability

**GEO CAPABILITIES**

- Georegistration
- Lat/Long, MGRS, and UTM Coordinates
- Image to Image
- Geo Jump and Geo Position Marker
- Geo Projections (Equirectangular and UTM)
- Ground Control Point Editing (GCP’s)
- Image Rectification
- Orthorectification
- Mensuration Support
- Location, Distance, Area, Elevation
- Shadow-based Clip Rect Height
- Relative Calibration and Mensuration
- Cursor Tracking
- North Arrow and Bearing Indicator
- Radial Distances Pro
- Scale Bars
- North is Up, Up is Up, Image is Up, M is Up
- Points of Interest (POI)
- Search Notes

**GIS SUPPORT**

- Geo Document Support
- Map Projected Mosaics
- Orthorectified Mosaics
- Feathering
- Reposition Layer
- Feature Data Class Support
- Spatial Filter
- Metadata Query/Search
- Themes
- Display-by-Scale
- 1 Button Metadata Display

**USER INTERFACE**

- Ribbon Toolbars Interface
- Tab-based Multiple Document Support
- Multiple Window/Monitor Support
- User Interface Theming
- High Resolution Icons/Graphics
- Rich Tooltips
- Contextual Awareness
- Enhanced Mouse Control Options
- Gallery of Open Documents (Thumbnails)
- International Language Support

**MULTI-DOCUMENT TABS**

Tabs maximize workspace as analysts can alternate between multiple workflows without clutter.

**CONTEXTUAL RIBBON TABS**

Tools are readily accessible and easy to find.

**PAN OVERVIEW WINDOW**

The Pan Overview Window displays the entire image in a resizable window. Ideal for broad area searches, analysts can control review direction and location using a variety of tools such as pan, roam, paths, and constraints.

**TOOL WINDOWS**

- The Explorer, Mensuration, Cursor Tracking, and other tool windows offer extensive exploitation and analysis tools.
- The DRA tool window lets users view and Adjust DRA settings. All tool window display options are fully customizable and can be docked, tabbed, shown side-by-side, and more to offer full control over the interface.

**INTUITIVE & CUSTOMIZABLE USER INTERFACE**
FOR NATIONAL SYSTEMS USERS: EIT/5500 PRO

EIT/5500 PRO extends the power of EIT/5500 to include the advanced features required by U.S. imagery analysts. With guidance from the U.S. Intelligence Community, EIT/5500 PRO was specifically developed to provide access to all required National Systems including:

• National Technical Means (NTM) Support
• Support for all TRF file formats
• Validated interface to Common Geopositioning Services (CGS) high precision targeting package
• Interface to Munsrion Services Program (MSP) high precision munsrion package
• Future Imagery Architecture (FIA) Formats
• Graphical Situational Display (GSD) Symbol Support
• Formatted Report Wizard

COMMON GEOPositionING SERVICES (CGS) INTERFACE

EIT/5500 PRO offers an interface to the Common Geopositioning Service (CGS), which is government validated. CGS provides analysts common tools for precise geo-positioning. EIT/5500 PRO includes an intuitive Precision Positioning Wizard, which guides analysts through the precision positioning workflow to select images, sample ground points, generate precisely placed image markers and create templates for distribution of results, all without leaving EIT/5500 PRO. The Precision Positioning Wizard also enables analysts to tailor workflow by specifying options such as Source Selection and Minimum Required Accuracy.

IMAGE EXPLOITATION FEATURES

• Image Processing Sampler
• Stretch Contrast, Piecewise Contrast, Binary Threshold, Adjust Color Balance, Color Invert, Density Slice, Gamma Correction, Linear Smoothing
• Mean, Median, and Pseudo Median
• Edge Detection: Canny, Diamond, Gradient, Horizontal/Vertical, Laplacian, Left/Right Diagonal, Prewitt, Robert, and Sobel
• Equalizations: CLAHE, Contrast, Exponential, Gaussian, and Radial
• Uniform Color Mode Conversion
• ROI Image Processing
• ROI Chipping
• ROI Curing

RADAR/SAR SUPPORT

• Magnitude visualization
• Floating Look/Platform Direction Indicator
• Speckle Noise Suppression
• Speckle Noise Suppression Sampler
• Global Slant, Nodal, Reporting
• Metadata Viewer
• Parallel Perspective
• Sensor Is Up and Up Is Up View Orientation Tools
• Data Formats: Cosmo-SkyMed, Radarsat2, TerraSAR-X, ALOS-2, TanDEM-X

MULTI-BAND IMAGE SUPPORT

• Band Viewer
• Sensor-Specific Band Profiles
• RGB Image Creation
• Multispectral Image Creation
• Pan Sharpening
• HCS, HS, Bmwy, Simple Mean
• NRI Support
• Rectification/Orthorectification
• Image Composition
INNOVATION AND PERFORMANCE
Trusted by analysts for maintaining the highest image quality standards and ensuring that pixels are in the right place, ELT/5500 is specifically designed to handle large imagery with ease. The ELT/Series multi-threaded processing chain technology improves image processing time, increasing user productivity. In addition, the Geospatial Solutions software development teams have worked extensively with monitor and graphics card manufacturers to optimize hardware and software performance levels. These enhancements are most evident in ELT/5500 ultra-smooth and jitter-free roaming performance.

ELT/5500 supports Windows 7 and Windows 8 and is available in both 32-bit and 64-bit versions. The 64-bit architecture is ideally suited for memory intensive applications such as image processing, virtually eliminating memory limitations inherent to the 32-bit architecture. With the 64-bit version of ELT/5500 users can expect an increase in overall performance and an improved user experience.

KEY FUNCTIONALITY

BROAD AREA SEARCH TOOLS
ELT/5500 offers a robust set of image manipulation tools designed specifically to facilitate broad area searches, potentially covering geographic areas of thousands of square miles. The ultra-smooth and jitter-free Pan/Roam function enables analysts to pan across large high resolution imagery with ease. The Dynamic Quality Roam (DQR) option in ELT/5500 enables analysts to specify the number of JPEG 2000 quality layers to be decompressed for display in the main window during roaming. By decreasing the number of layers displayed, the DQR mode enables analysts to increase roam performance with no noticeable effect on image quality.

When performing a search, analysts can leverage pan constraints, exclusions, and paths to control search location and direction. For example, paths can be used to view along a road, while an exclusion can be used to skip water. Paths, constraints and exclusions can be saved and shared with other analysts.

GEO MOSAIC DOCUMENTS
ELT/5500 offers a geo-registered workspace (Virtual Mosaic) into which geo-coded images, raster maps, and vector data files can be imported and auto-located. Analysts can visualize a variety of image files and data sources by changing the stack order in a document.

ACCURATE POSITIONING
ELT/5500 continues Geospatial Systems’ tradition of being the leader in geospatial accuracy. It utilizes map projections, geodetic models and elevation data to provide accurate geospatial positioning, terrain correction and orthorectification. The status bar includes a terrain correction icon indicating the status of the active data.

IMAGE COMPARISON
Analysts can quickly compare, study, and highlight changes using comparison tools. Ideal for detecting changes due to environmental or man-made conditions, ELT/5500 includes split image comparison, blending, wiping, colorized difference, color Q and flicker. An enhanced stereo mode also enables viewing stereo pair images, producing true 3D when utilizing stereo shutter glass hardware.

MENSURATION TOOLS
The convenient Mensuration Tool Window includes tools to measure accurate distances, perimeters, areas and changes in elevation, as well as automatically generates the appropriate text annotations. There is also a tool to measure a feature’s height (e.g., column, building, and tower) based upon the shadow it casts. If the image data is not geo spatially referenced, the software enables relative measurements by calibrating against a known object to determine size.

GENERATE PRODUCTS
ELT/5500 offers advanced product creation support, which is valuable when generating documents for dissemination. Templates can include annotations, graphics, logos, scale bars, north arrows, pixel and measured grid, text labels and text strings derived from document/image metadata. Analysts can quickly export templates and main window contents to PowerPoint making it easy to share important information about a location of interest. A new presentation can be created directly from ELT/5500, and new slides can be added.
INTERFACE TO GOOGLE EARTH

ELT/5500 works seamlessly with the popular Google Earth™ viewer so analysts can learn more about a location. Satellite imagery, maps, places of interests and other available information dynamically appears in Google Earth for the collocated view or entire document cover in ELT/5500. Image chips, vectors and associated metadata can all be exported to Google Earth, and are accessible under Google Earth’s temporary places. Lock tools are available to automatically synchronize views to ELT/5500 or Google Earth.

ENHANCED DYNAMIC RANGE

Analysts can quickly fine-tune Dynamic Range Adjustment (DRA) using ELT/5500’s dedicated DRA Tool Window. Panchromatic, Red, Green and Blue band histograms are graphically represented and can be adjusted individually or all at once to improve display. Preferred DRA calculations such as Default Percentiles, Lowest/Highest Values, and the number of Standard Deviations (1-6) can be set as defaults in preferences to streamline workflows. The DRA function also enables the values below/above the min/max to be excluded from the histogram when calculating the DRA. This feature is especially effective for images with heavy cloud cover, dark bodies of water, and other similar low-contrast conditions.

GIS AND VECTOR SUPPORT

ELT/5500 provides support for a number of vector databases and file formats used in GIS and mapping systems such as: Shape, Vector Product Format (VPF), Microsoft Access (MDB) and Comma Separated Values (CSV). These databases contain both vectors and associated metadata called Feature Classes. An entire feature class can be imported into ELT/5500 or filtered by attribute. Feature graphic properties are customizable, and symbols can be mapped to a particular type. For example, if importing communication towers, analysts can assign a tower symbol. Analysts can also visualize data using themes.

ELT/5500 also supports querying Web Map Tile Service (WMTS) and Web Map Service (WMS) enabled servers using HTTP protocols to acquire geospatial data.

Analysts can visualize roads, buildings, and other features directly in ELT/5500 so they can work within their more familiar application. Features can be selectively loaded to only show the objects needed. For example, a building feature class can be clipped to only include buildings that overlap the image. Analysts can also control features to display by attributes.

Feature properties such as color, line, and fill are all customizable on import of the data source. Features can be assigned symbols and show metadata labels. Themes can also be assigned to make it easier to identify features by type.

GEO REGISTRATION

ELT/5500 includes geo-registration tools to add or improve georeferencing. A single image can be geo-registered by plotting known coordinates or by selecting tie points between a target and geo-referenced image. Once geo-registered, positioning operations such as mosaicking and mensurating are enabled.

Analysts can visualize roads, buildings, and other features directly in ELT/5500 so they can work within their more familiar application. Features can be selectively loaded to only show the objects needed. For example, a building feature class can be clipped to only include buildings that overlap the image. Analysts can also control features to display by attributes.

Feature properties such as color, line, and fill are all customizable on import of the data source. Features can be assigned symbols and show metadata labels. Themes can also be assigned to make it easier to identify features by type.
Analysis of traditional Electro-Optical (EO) imagery can sometimes be challenging. Cloud cover, nightfall, tree canopies, and other natural barriers can often obscure imagery, preventing proper exploitation. ELT/5500’s Synthetic Aperture Radar (SAR) capabilities provide analysts the means to overcome these limitations. Complex SAR data is visualized and optionally enhanced using speckle suppression algorithms, enhanced Dynamic Range Adjustment (DRA) and pseudo perspective-based transformations. SAR specific orientation tools are provided to simplify and enhance exploitation. Key contextual information such as Look Direction, Incidence Angle, and Polarization is clearly presented in dynamic floating overlays and status bar metadata. All major SAR sensors are supported.

Unprocessed images typically exhibit a salt-and-pepper pattern. ELT/5500 includes several algorithms for reducing this noise. The Radar Image Sampler lets user preview speckle suppression options before applying to the image.

Earth features such as waterbodies, vegetation, and man-made objects have different reflective responses when captured by sensors. Analysts can now apply different sensor types such as WorldView-2, SPOT, and RADARSAT-2 to visualize various spectral band combinations. For example, Vegetation, False Color, or Natural Color profiles can be applied to visualize features. Common sensors and associated profile settings are provided saving time from having to manually enter values. If a particular sensor and profile is not available, analysts can create their own custom profiles.

Using pan sharpening tools, analysts can easily combine a high resolution single-band panchromatic image with a multispectral RGB image to create a single higher resolution multispectral image. ELT offers Brovey, Hue-Saturation-Intensity (HSI), Hyperspherical Color Sharpening (HCS), and Simple Mean methods. Analysts can take it a step further by applying a Profile to the resulting pan sharpened image. ELT includes all common profiles and associated attributes so analysts don’t have to research settings and manually manipulate bands.