As a complement to our VANTAGE™ software suite capabilities, the Space Dynamics Laboratory (SDL) has developed an architecture for rapidly producing small, lightweight screeners that are easily customized to meet a program’s specific sensor needs. The design uses the same multi-INT database and server as VANTAGE, with a single-window, 3-D display. These EarthView screeners incorporate the tactical imagery with terrain elevation maps and geo-rectified national satellite imagery for a situationally aware view.

EarthView is an extensible screening framework developed by SDL and the Naval Research Laboratory (NRL). It provides a generic structure upon which modular, program-specific sensor and external interfaces can be attached to develop a customized screener. Each sensor, database, and third-party interface is developed as a self-contained unit, allowing new interfaces to be added or removed quickly and easily. Leveraging EarthView technology, a new screener can be developed—from concept to full functionality—within a matter of weeks. SDL has developed EarthView screeners to support a variety of sensor types, including EO/IR, HSI, SAR, WAMI (Wide Area Motion Imagery), and FMV (Full Motion Video). The software is capable of simultaneously capturing and screening multi-sensor, multi-INT sources.

**FEATURES**

**HIGH RESOLUTION, 3-D EARTH MODEL DISPLAY WITH MAPS & ELEVATION**
- Layers tree to show/hide/manipulate individual images or collections of images as layers

**REAL-TIME GEO-RECTIFICATION & CORRELATION OF IMAGERY**
- Dynamic caching allows scaling up to any size focal plane array or to wide fields of view while keeping up with full data rates
- Seamless resolution set loading during zooming

**SIMULTANEOUS SUPPORT FOR MULTI-SENSOR, MULTI-INT SOURCES**
- Ability to receive data directly from surveillance sensors, compress it, store it locally, & send it down an attached data link if present
- EO/IR, HSI, SAR, WAMI, & FMV currently supported

**EASE OF USE COUPLED WITH EXTENSIBLE FEATURES**
- User-friendly, one-window display with dockable panels
- Ability to perform post-processing of raw SAR data from database
As data is received, the software geo-rectifies and correlates the imagery in real time and displays it overlaid on high-resolution, 3-D map data. The screener is designed to scale to any size of focal plane array or to wide fields of view while keeping up with full data rates. It does this by generating resolution sets of imagery dynamically and caching them as necessary. This provides seamless resolution set loading as the operator zooms in and out.

ABILITY TO INTEGRATE AUTOMATIC TRACKING & DETECTION ALGORITHMS
Developed by SDL and NRL, the EarthView screener is a valuable tool for operations such as persistent surveillance due to its powerful processing and fast display capabilities. Using algorithms developed by NRL, the software can track multiple moving objects within the scene and display those tracks, providing the analyst with valuable insight into the origin and destination of targets of interest.