VANTAGE™ software, developed by the Space Dynamics Laboratory, screens and processes tactical imagery in support of various sensors (ATARS, LSRS, Global Hawk, SYERS, ASARS, MTI data). VANTAGE provides rapid screening of digital tactical image data from a live data link, solid state recorder, DVD/CD, or hard disk. This software enables the image analyst to receive, decompress, process, display, evaluate, exploit, and store imagery data; as well as create/disseminate processed image products. VANTAGE can be customized to support data from multiple sensor formats, including single- and multi-band electro optical/infrared (EO/IR), synthetic aperture radar (SAR), and hyperspectral (HSI).

**FUNCTIONAL DESCRIPTION**

**IMAGE PROCESSING & DISPLAY**

VANTAGE is capable of screening and processing tactical imagery and multi-INT data from a live Common Data Link (CDL), solid-state recording device, CD/DVD, Network (IP), distributed server, or local disk.

**WATERFALL DISPLAY**

As the data is ingested and staged, the software displays decimated image thumbnails in a continuous waterfall of frames tiled according to the given sensor model and navigation data. The operator has full control over the waterfall’s speed, direction, magnification level, and display of annotation data captured from the pod. A user may also display the imagery geo-rectified over a map.
DATA ACQUISITION
- Real-time Common Data Link (CDL)
- STANAG-compliant solid state recording devices
- Local disk/RAID
- DVD/CD

IMAGE SCREENING/DISPLAY
- Real-time streaming waterfall of imagery
- On-demand display of full-resolution images & multi-frame chips
- Image zoom, pan, rotate, & magnify
- Latitude/longitude & north indicators
- Annotation data display
- NITF file header display
- Previous JITC certification for various sensors

VIDEO SCREENING CAPABILITIES
- MPEG2 & H.264 video compliant
- Motion Industry Standards Profile (MISP) compliant
- Ability to display KLV metadata
- Ability to quickly create multiple products (video clips, NITF, JPEG)
- Government-off-the-shelf (GOTS) solution

SITUATIONAL AWARENESS
- Ability to show the aircraft track data on a map
- Cue display (manual, city, & automatic cues)

IMAGE MANIPULATION/EXPLOITATION
- Contrast enhancement & pseudo-color
- Object mensuration
- Text & graphic annotation
- Image filter algorithm
- Ability to auto-chip imagery based on a geo-graphic location

CHANGE DETECTION
- Auto & manual imagery correlation to provide a flicker window between overlapping images
- Ability to query the database for images matching an unknown location

IMAGE PRODUCT STORAGE & SHARING
- Archive from/to the SSR in raw or NITF format
- Image product print/save/copy to clipboard
- Display/export NITF 2.1, JPEG 2000, ENVI
- Interfaces with the DCGS Integration Backbone (DIB) to expose multi-INT data

COMPATIBILITY
- Cross-platform implementation works in both Windows & Solaris 10
- Standard image format compliance
  - National Imagery Transmission Format Standard (NITFS)
  - Basic Image Interchange Format (BIIF)
  - ISO/IEC 12087-5
  - STANAG 4545, 4607, 4609, 4575

USABILITY
- Modular/expandable design to support additional sensors & data devices
- User-friendly graphical interface