

Intelligence Situation Awareness Tool

Get a big picture view of the battlefield using advanced analytic intelligence



No matter the situation, the key to staying ahead of the game is intelligence and awareness. Intelligence collection is a full-time activity—whether it's capturing and analyzing signals, observing and reporting activity, or monitoring communications—keeping track of what's going on is key to being aware of the entire threat picture.

But intelligence collection is only half of the equation. How that information is gathered, correlated and presented determines how well the information may be utilized by an end user. Tactical Data Processors (TDPs) have long performed this function by receiving and displaying tactical intelligence data in tables, charts and on geographic displays. Only through awareness can a timely and informed response be made.

Near-real-time situational awareness

Perspecta's Intelligence Situation Awareness Tool (ISAT) is a TDP that runs in Microsoft Windows on COTS hardware to provide a near-real-time picture of the maritime and ground-based situation based on SIGINT, radar, AIS and other sources.

Designed and built to run efficiently and autonomously on a PC platform, ISAT provides a rich suite of tools to view, manage and analyze tactical data. From simple lists of tracks to in-depth visual analyses, ISAT was designed to do the heavy lifting so intelligence personnel can spend their time taking a deep dive into the data to develop a clear vision of the tactical situation and resolve anomalies.

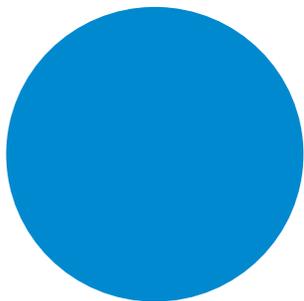
Threat monitoring

Different environments call for different missions, and ISAT is ready to meet the challenge. Built-in alerts and alarms allow ISAT to warn the operator when specific situations arise that require attention or a response, and the operator can set audible and visual alerts based on proximity, geographic region or target behavior. Automatic alarms for Blue Force reporting may be configured. Additionally, protection and exclusion zones can be defined with audible and/or visual alarms to indicate when a protection zone is violated or an exclusion zone is changed.

Tactical display

ISAT includes a 2D tactical display that serves as the primary access to the system's analysis tools. The tactical display presents a geographic map that may be configured to overlay vector and raster maps provided by third-party sources. Tracks and other objects are plotted on top of the map. The operator may use the mouse and keyboard to manipulate the map; access tracks; open dialogs and list views; and to create tracks, overlays and other objects.

By default, ISAT generates tracking solutions for all tracks on the display. This allows the operator to analyze past behavior or predict future movement for all tracks on the display simply by adjusting the time-of-display on the map. An animation function is provided that allows time to be played backwards and forwards so that the interaction between tracks and their movement over time may be observed.





Resource management

A common question about PC applications is what are the resource requirements? For ISAT, the answer is none. ISAT allows the user to customize the size of its data storage to fit into the available space on the target hardware. While the installation size of ISAT itself is fixed, the amount of space required for the tactical database and ancillary files is fully configurable by the user. The user may specify how many tracks and events to store, how many message and report log entries to store, and whether or not to retain raw message data. ISAT will automatically purge data when maximum sizes are reached. In addition, the user may configure alerts to warn when available disk space, page file space or virtual memory space falls below user-specified minimum percentages.

A superior solution

ISAT is designed to serve a myriad of missions, and has grown a vast customer base over the last three decades. It supports the threat picture for cruise missile programs, range safety for ballistic missile defense operations, and tactical situation awareness, surveillance and target monitoring for U.S. and allied nations’ military operations.

ISAT provides a superior solution to the problems facing today’s tacticians, intelligence operatives and warfighters. It is adaptable, flexible and ready to support any mission, today and in the future.

Key Features

Tactical communications

- TCP/IP, UDP/IP, multicast, serial and file transfer interfaces to access tactical data
- Message input processing for GPS, radar and both modern and legacy military formats, including some NATO formats
- Message translation between formats
- Message output processing in multiple formats and protocols

Correlation and tracking

- Automated report-to-track correlation based upon data content
- Automated tracking using maneuvering target statistical tracker (MTST), maneuver-detector tracker (MDT), or single-sensor line-of-bearing tracker (SLOBT)
- Multi-leg tracking capability supports tracking of intermittent emitters and ships in ports/ harbors
- All trackers support dynamic update of track solutions

Track Association

- Automatic track merging based on co-located emitters or attribute matching
- Automatically identifies weapon systems and platforms based on unique emitter combinations defined in customer-accessible tables
- Links near-real-time emitter tracks to Electronic Order of Battle sites defined in customer-accessible tables

Tactical Display

- 2D Geo Engine uses vector and raster map data as underlay for displaying tracks, sites, sensors and overlays
- Analysis tools allow the operator to interact with and create tracks, sites, sensors and overlays
- A component service produces tracks, sites, sensors and overlays in KML for compatible 3D viewers