Objectivity's Customer Northrop Grumman receives GSN Homeland Security Award for "Best Intelligence Data Fusion and Collaborative Analysis Solution"

A Fusion System for Today's Multi-Intelligence Environment

The international focus on crime and terrorism has placed unprecedented demands on government agencies tasked with developing or acquiring software applications to ingest and manage massive amounts of intelligence data. Modern data collection systems call for an advanced tactical data processor (TDP) that is flexible enough to manage large amounts of national and tactical data. Unfortunately, most TDPs cannot handle every data-type and maintain a user-friendly dynamic at the same time. Additionally, today's operations tempo requires analysts to cover a broader situational knowledge-base with limited experience and skill specialization. Overcoming these deficiencies, the Analyst Support Architecture empowers analysts to bridge the gap between raw data and the decision of execution through a suite of tools that are complementary to both the novice and the specialist.

The Analyst Support Architecture (ASA), developed by Northrop Grumman, is a display and analysis software designed to rapidly integrate multi-source data into a scalable collaborative analysis environment. ASA has revolutionized the way DoD and IC analysts collaborate, share data, and see a common operating picture. As a data fusion application fielded by the U.S. Air Force Electronic Systems Center PICSTER program, an umbrella program for a number of fusion applications, ASA has been in operational use and under development for over 10 years. It provides a correlated operational picture for the analyst to validate new and unusual activity. Detected events are displayed both graphically and textually and are conveyed in the context of the organization being monitored. In addition, the system contains numerous interactive tools which allow ad-hoc manipulation of the data to enhance user-driven analysis activities. Further it is designed to allow rapid integration of multi-source data in both integrated air defense and maritime domain awareness environments to meet the informational and operational needs of today's war fighter. The U.S. Air Force is actively using ASA in the National Air and Space Intelligence Center (NASIC) Operational Watch Center. Analysts at NASIC pass relevant information to tactical users in-theater. The success of ASA resulted in the Air Force decision to add ASA to its Electronic Systems Center (ESC) at Hanscom Air Force Base in Massachusetts. Key features of the system include:

- Threat Warning
- Tactical Movement Detection
- Target Development
- Event Discovery
- Collaboration

- Situational Awareness
- Out-of-Garrison Operations
- Event Discovery
- Pedigree Data

The correlation engine is ASA's heart and soul providing a virtual subject-matter expert that is adaptable to any operation or environment. The systems enhanced situational awareness is accomplished through an updating process of Correlation -> Identification -> Verification -> Alerting. ASA is a GOTS product that is coupled with the adaptable COTS Objectivity/DB® database structure.

Objectivity/DB, the leading fully distributed database for data fusion applications, is currently used in C4ISR applications that are critical to assisting the war fighter. Its capabilities are harnessed for electronic warfare and weapons guidance applications and similar environments that benefit from Objectivity/DB's unprecedented ability to power applications that collect, fuse and process Multi-INT data.