



SPADAC[®]



PREDICT.
PREPARE.
PROTECT.



INTRODUCTION TO SPADAC

A leader in the fusion of spatial intelligence and predictive analytics, SPADAC enables organizations to make objective and confident decisions in the face of complex operational and business challenges. The company's unique approach combines actionable spatial information, human terrain and social networking elements with innovative predictive analytics technologies. This process ensures that SPADAC's subject matter experts, proven methods and patented technologies come together to minimize risk, maximize opportunities and significantly increase organizational resiliency and the likelihood of success for a diverse client base. Headquartered in McLean, Va., with operations globally, SPADAC supports customer organizations within defense, intelligence, homeland security, civilian government and commercial markets.

MISSION

To provide superior advanced geospatial intelligence services and solutions to Defense, Intelligence, Homeland Security, and Commercial Markets.

SOLUTIONS

SPADAC is organized into three delivery organizations designed to meet the world's most challenging problems - Engineering, Analytics, and Products. These three organizations provide a wide range of products and services including:

- Geospatial Intelligence and All-Source Analysis
- Geospatial Content Management
- Predictive Analytics
- Advanced Research and Development

ENGINEERING

SPADAC's engineering services provide expert decision support, data modeling, and custom software systems for customers in defense, homeland security, law enforcement, and commercial risk and fraud mitigation.

Our Engineering staff are professionals in machine learning and data mining, business analytics, and systems engineering. SPADAC also provides top quality support and system architecture for high performance cloud computing applications in classified environments for government agencies.

This integration of advanced empirical data modeling with highly scalable, high throughput computing systems makes SPADAC uniquely capable of providing successful solutions for the most challenging data analysis and resource allocation problems.

Core Competencies:

- Pattern classification and empirical modeling
- Spatial Ontologies and Unstructured Text Processing
- Predictive analysis algorithms for complex systems
- Location classification using LIDAR and Imagery
- Risk Assessment and Resource Optimization
- SIGINT, MASINT, IMINT
- Socio-Cultural Geography, Human Terrain
- High Performance Computing
- Entity Extraction and Identification

Illustrative Technologies:

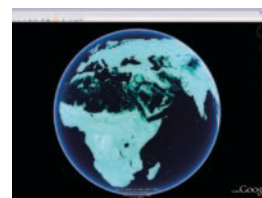
Canvas

Canvas is an unstructured text visual analytics utility designed for all source and media analysts. Using the Canvas application, analysts can dynamically visualize text-based data prior to specifying any filter terms. Filters and search terms are then applied to data store, with immediate results shown in the visualization. We have demonstrated four use cases: 1) Geographic focus, 2) Threat focus, 3) Canvas as a follow-on to SIGINT analysis, and 4) Canvas as a precursor to SIGINT analysis.



MrGeo (high performance geospatial computing)

MrGeo is a geospatial analysis library and set of interfaces built on top of the popular Hadoop system for high scalability computing. MrGeo implements many computing intensive operations scalable to billions of records: Kernel density over time, sum of points in polygons, raster algebra, map rendering, and terrain classification. MrGeo scales from a single compute node to hundreds with no change of the software; all while delivering web services interfaces and a rich internet application user interface.



PlanetRisk

PlanetRisk is a global risk monitoring, modeling, and reporting system developed by SPADAC for the risk prevention and mitigation community. Massive amounts of open source information is catalogued and indexed, with the severity and frequency of reports feeding a statistical engine that seeks to aggregate this reporting into a global-to-local assessment of risk of severe weather, organized crime, riots, terrorism, and disease.



