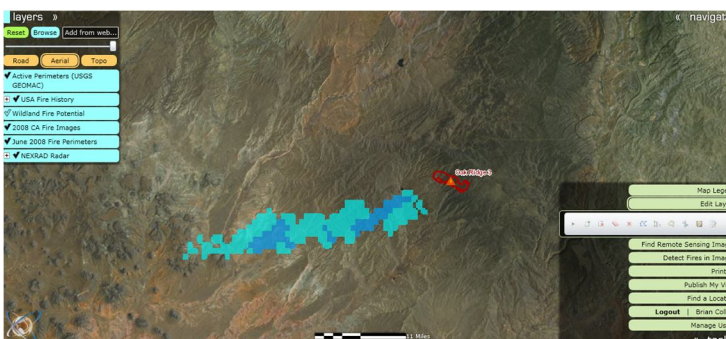




SituationAnalyst

"SituationAnalyst" (SA) is an active situational awareness software solution that combines on-demand decision support tools with a common operating picture. SituationAnalyst allows operations and planning personnel to take charge of the decision support process and enhance collaboration and information sharing during single or multi-event incidents. Currently in use by fire and emergency response personnel, SituationAnalyst provides a framework for organizations to leverage their investment in enterprise geospatial information systems (for example, ESRI-based architectures) by adding an easy-to-use, flexible graphical interface, mobile capabilities, and integrated decision support tools.



Key Features

SituationAnalyst

Next generation of Decision Support and Common Operational Picture designed to address the needs of emergency response, risk management, and logistics supply - anyone who needs to bring a variety of information sources into an integrated mapping format and use that information for effective decisions.

- *Combines decision support tools with an intuitive map display.*
- *Easily add new decision support tools as 'plug-ins'.*
- *Enables user to download and display information from internal and external sources.*
- *Shares a common view of a situation quickly with customers, cooperators, or the public.*
- *Enables enterprise-wide collaboration through shared mapping and geoprocessing.*

SituationAnalyst ...the first responder's ultimate awareness tool

Functional Information:



Key
Features

Rapidly scale from a top-level overview to incident-level details – The Command View module for SituationAnalyst (SA) provides a top-level view of an operation, event, or incident allowing key decision makers to take a broad view prior to delving into an incident-level operational picture. SA provides the following to top-level managers:

- Uncluttered view of the country, region, or district to give a simple, highly intuitive representation an unfolding event.
- Aggregate incident-level information for top-level decision-making. For example, a fire fighting application would include incident name, size, resources, and change in status for reporting period.
- Ability to 'drill into' regions and incidents with as much detail or functionality as required.

Tailor the operational view to address incident specific needs – SituationAnalyst was developed to enable operations personnel to leverage the power of spatial data. The SA framework includes simple navigation tools and icons, design interfaces, and workflows that were developed from field experience. SituationAnalyst features include:

- Full utilization of existing GIS data in easy-to-use field format (from planning and mitigation information to historical incidents to base maps). The interface relies on single button clicks allowing easy access from a mobile command vehicle, within fixed-site planning facilities, and command centers – anywhere an organization has an internet connection. As a result, SA puts valuable pre-incident data into day-to-day emergency use.
- Preconfigured to display real-time data feeds from federal/state/local sources. Dynamic data including hazard-specific incident information, real-time weather, traffic flow, and resource tracking can be displayed along with local incident data.
- Multiple seamless base map choices (Aerial Photos, Street Maps, and Topographic Maps). SituationAnalyst can be used with local base map services or any standard tiled map service.

Conduct analysis and decision support – As an active situational awareness tool, SituationAnalyst includes tools for understanding what is happening during an event or as a result of actions and decisions. SA provides a baseline of spatial analysis tools and includes the capability to develop and 'plug-in' new analysis functions.

- Spatial queries and geoprocessing are configurable to point to any source of data (demographic, structures, critical infrastructure, etc.).
- Baseline spatial analysis tools include demographic and feature queries such as "How many people will be affected?" and "How many structures are threatened in the next operational period?"
- Capability to develop and 'plug-in' new analysis functions using base data from within a geodatabase or any data loaded into the framework.

Access and use data from all potential data sources – SituationAnalyst provides easy, flexible options for adding data from multiple sources to support visualization and analysis. SA provides the capability to access the following data from within internal databases and external sources:

- OGC compliant web services.
- Web Mapping Services (WMS).
- Shapefiles (zipped or uncompressed).
- KML/KMZ layers from Google Earth.

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Share intelligence with partners and stakeholders – SituationAnalyst was developed to create and share information and intelligence across an organization, activity, or incident. SA includes the following capabilities to share information:

**Key
Features**

- Export of any layer from within SA to Google Earth with the touch of a button.
- Configurable to work within Microsoft SharePoint as a web part.
- Creation and management of specific 'view states' that can be saved and shared.
 - Store and save user preferences to include open layers, tools, and map settings. This feature allows operations personnel to 'begin where they left off' when they return to the system.
 - Share a view state as an email or URL allowing mission partners to 'see what you see'.
 - Create custom views including layers, tools, and content based on user name, group, or role.
- Print any map with ability to add custom title and sharing options.

Collaboratively map and share information – The ability to generate and edit spatial data within the common operational picture is a hallmark of SituationAnalyst. While SA excels at integrating outside data feeds, it was developed to integrate in-the-field mapping updates with an enterprise approach to spatial data. SA includes the following collaborative mapping features:

- Allow operators in the field (fire fighters, resource managers, second responders) to directly add field information such as incident perimeters into an evolving, real-time display.
- Built-in, browser-enabled editing with the ability to use standards-based symbology (for example, Fire Incident Mapping Tools (FIMT) and FDGC Homeland Security symbology).
- Spatial data editing with the capability to populate incident-specific geodatabases, temporary user databases, or enterprise geodatabases.
- Editing functions are configurable by user name, group, or role.
- Mobile editing supportable within the viewer or on mobile devices such as the iPad, iPhone, or Windows7 phones (Android in 2011).

Process remote sensing and imagery data – (some tools and algorithms may require additional software licenses or plug-ins). SituationAnalyst was developed as an active decision support tool, which in today's environment, demands that data integration goes beyond geospatial information and into remote sensing and imagery. SA provides best-in-class integration:

- 'Plug-ins' to access commercial imagery data and processing. Access to commercial data providers can be configured to eliminate the need for switching from one viewer to another to download and query information.
- Automated imagery tools and modules can be added directly into the SA architecture. SA includes a framework for imagery query, selection, and processing that can be used to control internal or external processing algorithms (including SOA-based and stand-alone executable tools).
 - Capability to manage imagery analysis processes and integrate results directly into SA framework. Allow the user to 'drive' the analysis process with simple, intuitive steps such as selecting an area of interest (a fire, etc.) and choosing an imagery processing tool.
 - SA framework currently includes algorithms supporting fire detection and maritime awareness. In addition, SA is designed to integrate commercial or government provided processing algorithms as 'plug-ins'.

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Technical Information:

Tech
Features

SituationAnalyst is built to sit on top of customer systems and make sense of it all.

- Decision support tool that supports multiple platforms thru web browser interface.
- Developed as a web-accessible, service-oriented layer that complements existing baseline architectures rather than replacing an organization's investment.
- Core technology was designed in coordination with ESRI and other GIS and database industry solution providers allowing the system to provide data to and interact with multiple database architectures.
- Based on the Silverlight platform and written in C# and XAML, SA provides for expansion and extension using rapidly growing Silverlight component/widget development occurring throughout industry.
- Standards compliant data architecture allowing for cost-effective integration of GIS data.

A typical installation enterprise-level environment consists of:

- Windows Server 2008.
- ArcGIS Server/SDE.
- ESRI Silverlight API (Based on the ESRI Silverlight API, heavily extended and customized to optimize tools and speed for rapidly emerging events.).
- SQL Server 2005 or newer. Other configurations are possible (open source databases are supported, however, enterprise-class databases are recommended).
- Deployable to cloud environments, virtual environments, or within corporate networks.

Although SituationAnalyst is built to sit on top of an existing GIS environment, some configurations do not require additional purchase of ESRI ArcGIS Server or ArcGIS Desktop products.

Pricing Information:

Pricing

Situation Analyst is available for \$24,995. Price includes 40 hours of on-site support for full installation and enterprise integration. Maintenance is available for \$2,200 annually and includes technical support and version upgrades.

Situation Analyst can also be purchased as a \$4,915 Monthly subscription. Under a subscription service, Intterra will host SA on the Amazon EC2 cloud. This configuration includes ArcGIS Server Enterprise Advanced licensing as well as initial configuration and technical support. 'Cloud-hosting' is not hardware dependent and can expand in size and speed during dynamic situations such as real-world events. Subscription services also include version upgrades and technical support.

Initial configuration time and material costs for purchase or subscription will vary based on customer requirements.

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