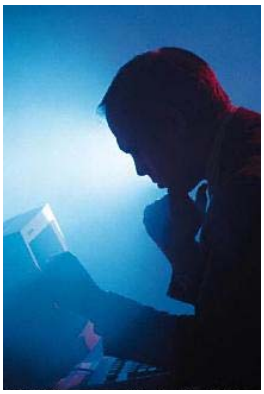
Predictive Analysis – Geo-spatial Temporal Data Visualization



Intelligence analysts are confronted with an information bottleneck of unprecedented proportions.

The omnipresent digital domain has combined with communication technology to enable new forms of information (e-mail, voice-to-data), expanding the incoming information by an order of magnitude.

converting information to intelligence

Analysts must turn this information into intelligence by quickly, thoroughly and precisely scanning 5,000 documents a day or more for relevance to a growing number of threats, route relevant information to appropriate subject matter experts for analysis, and then issue precise, ***actionable*** intelligence to war fighters or first responders.

The current generation of information management technology can not give the analyst the tools needed to handle the vast influx of information or recognize meaningful concepts within the information, concepts that could add up to intelligence.

In recognition of this fact, Microlanguage™ built a proof-of-principle prototype *predictive* analysis application on the ObjectFX™ SpatialFX™ J2EE compliant mapping software Platform that demonstrates the power of ObjectFX's data visualization and mapping tools, and the power of Microlanguage's Thematix™ intelligent language processing technology to:

- **isolate** and extract relevant information from mountains of data
- dramatically **reduce** the amount of time analysts lose sifting through irrelevant data
- **eliminate** the need for repeat searches because insufficient quantities of relevant information, or information of little value is retrieved
- **assemble** discrete and seemingly unrelated bits of information into keys that can unlock plots and preempt threats
- dramatically improve the **precision** and **recall** of content retrieval and knowledge management systems

threat scenarios emerge

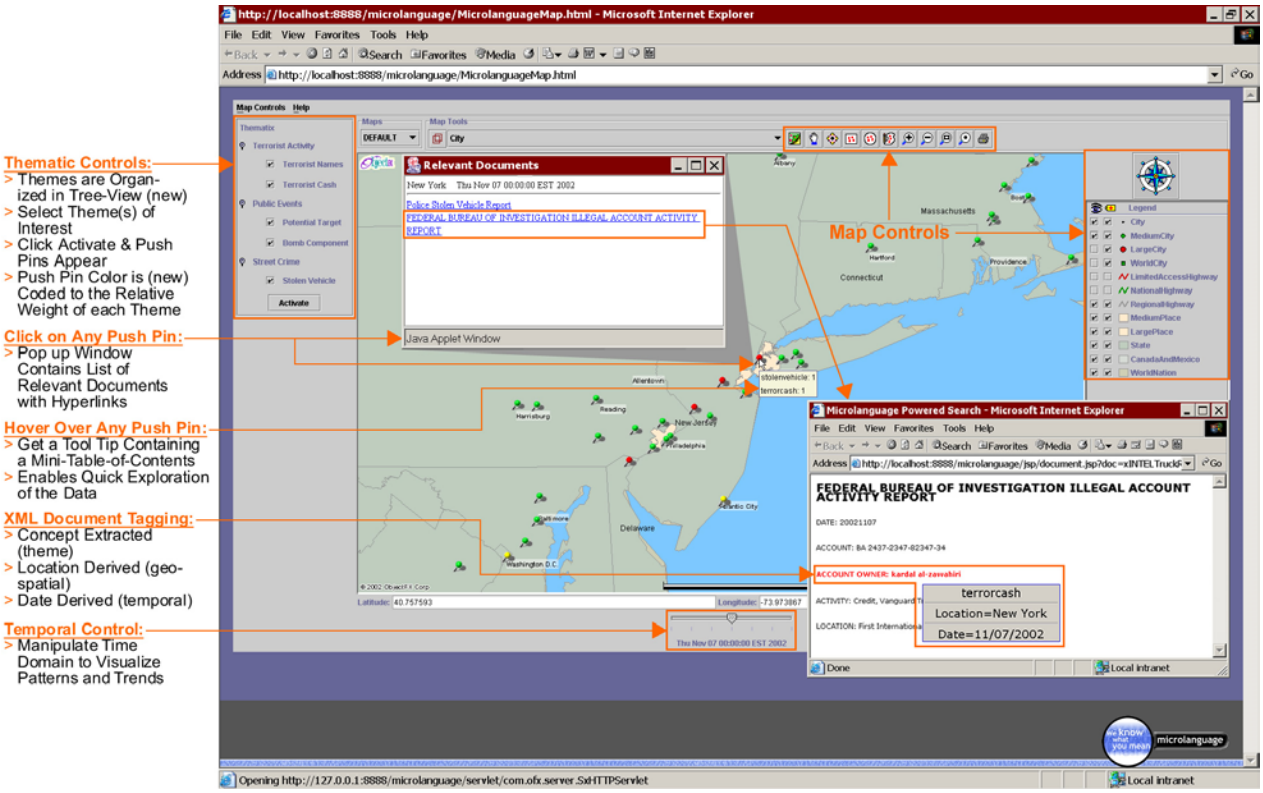
Microlanguage and ObjectFX have demonstrated the proof-of-principle geo-spatial, temporal data visualization application to the intelligence community[1]. This application can:

- **recognize** thematic and conceptual content in disparate document types (articles, e-mails, sitreps, wire service feeds) within a knowledgebase
- **browse** a knowledgebase in three dimensions:
    1. THEMATICALLY, according to the themes, concepts, or events in the documents;

[1] At the Information Sharing and Homeland Security Convention, Philadelphia, PA, August 19 – 21, 2002, and at the Threat Prediction and Geospatial Intelligence Seminar, November 13, 2002, McLean, VA

2. GEO-SPATIALLY, according to the latitude and longitude of the place that the events in the document occurred; and
3. TEMPORALLY, according to the time that those events took place.

- **visualize** patterns and clusters of potentially threatening activities surrounding potential targets, connect the dots, and issue intelligence to first responders and war fighters



About Microlanguage

Microlanguage has built its reputation for providing high value solutions on three main strengths: its core technologies, its application development and integration skills, and its commitment to meeting each customer's need for support the first time, every time. For more information or to arrange a personal demonstration of Thematix, please visit Microlanguage on the Web at **www.microlanguage.com** or contact Greg Swarts, Director of Marketing and Sales, at 610-995-1017 or via e-mail at greg.swarts@microlanguage.com.

About ObjectFX

ObjectFX provides SpatialFX, an innovative Java-based software platform that enables the integration of dynamic location-based services such as mapping, vehicle routing, address geocoding and other spatial operations into enterprise applications. Users of applications built on the SpatialFX(tm) Platform can see and interact with real-time, integrated views of information in a location-based context, thereby enabling faster, more effective decisions. For more information or to arrange a personal demonstration of SpatialFX, please visit ObjectFX on the Web at **www.objectfx.com** or contact our government sales team at 410-884-4090.