



Product Information

V.A.I.L. Pattern Recognition

V.A.I.L. (Virtual Analyst Intelligence Logic) is a technology that finds patterns in databases, documents and other streams of data. Using a rules engine, V.A.I.L. can find occurrences of patterns (crimes, incidents, etc) in real-time. V.A.I.L. can find these patterns by proximity, date, time or any other factor that can be extracted from the data source.

V.A.I.L. is a non-invasive engine that sits along side existing IT systems as a value-add technology. V.A.I.L. inspects data, applies pattern matching logic and stores information in a global pattern repository. As patterns are identified in real-time, key stakeholders are made aware of their occurrence through alerts.

Identified patterns are presented to end users through a web based visualization and analysis tool. Here, the end user can view, analyze and disseminate pattern results as needed.

Case Study

Extending COMPSTAT with dynamic pattern matching



COMPSTAT is a renowned crime reduction methodology that is implemented by law enforcement agencies throughout the U.S. and internationally. COMPSTAT relies heavily on weekly statistical data which is analyzed by a unit of individuals. This data is used, among other things, to identify patterns and trends and to increase accountability of precinct commanders that address them.

The problem, up until now, has been that COMPSTAT requires intensive analysis by individuals assigned to both the COMPSTAT and enforcement units. Finding crime patterns in incident data usually involves a combination of analysis by people and technologies such as databases, mapping and business intelligence. This analysis is not done in real-time and does not guarantee that all patterns are identified.

The V.A.I.L. engine can be used to

identify crime patterns as they occur based upon analysis best practices used by the organization. Because the V.A.I.L. technology analyzes data 24 X 7, it performs the work of many analysts hence providing a force multiplier.

Relative to COMPSTAT, V.A.I.L. can identify burglary, robbery, assault or any other type of pattern or trend in real-time. This approach extends the present COMPSTAT paradigm by allowing for more frequent identification of trends hence allowing enforcement personnel to act swiftly to abate crime. This will augment present crime reduction initiatives and help to further reduce crime across the public safety spectrum.

This is what has been missing for many years in law enforcement--the ability to identify what's happening now; what's the next pattern or trend. The ability to get out in front of crime and prevent. This is the next level for COMPSTAT beyond the traditional 28 and 7 day analysis cycles.