3D Visualization Tools Boost Analytics

October 8, 2012

Financial services firms are using three-dimensional data visualization tools to manage dynamic multi-dimensional, complex data in real time.

Traditional two-dimensional data visualization tools such as grids, charts or diagrams are limited in their ability to parse multi-dimensional data.

However, more advanced visualization tools solve this problem by introducing more dimensions on the second surface, such as color, shape, size and animation effects.

"This data visualization offers real-time multi-dimensional data analytics and validation," said Oleg Komissarov, vice-president of enterprise solutions at DataArt, a custom software development firm.

DataArt has formed a partnership with Aqumin, a 3-D real-time visual interpretation solution.

Introducing the third dimension helps users make more intuitive and effective decisions with less energy in a much shorter period of time.

"Automated data validation tools often miss data breaks, whereas this 3D visualization technology improves quality controls enabling users to catch data breaks and abnormal data points, while also bolstering real-time fraud detection and network health monitoring." Komissarov said.

By enhancing real-time data management, data visualization enables traders, portfolio managers and risk analysts to extract more value from their quoted and proprietary data.

"Visualization is a critical piece of the 'big data' story," said Matt Benati, vice-president of global marketing at Attunity, a technology provider. "By its very nature, big data is far too vast and complicated to be digested by people."

Visualization providers "make sense out of big data and present it in an easy to understand form, including graphs, charts, percentages and trends," said Benati. "This enables business owners to quickly spot relevant information, drill down if necessary and ultimately make fact-based decisions that drive competitive advantage. Visualization techniques enable capital market companies to see the forest through the trees."

Traditionally, most traders and analysts have been able to effectively monitor up to three groups or dimensions of financial data, said Komissarov.

3D visualization expands these capabilities, making it easier to catch alerts and find opportunities.

"Our clients can now more easily visually monitor multi-dimensional data in real time," said Komissarov.

"The added benefit of utilizing this technology is analogous to an accountant using Excel automation versus manual calculations; it requires much less effort while proving to be faster and more effective."

Panopticon Software, a provider of data visualization software for real-time, complex event processing (CEP) and historical time series data, has launched a new version of its platform that supports Windows and Java IT environments for enterprise deployment, enabling clients to embed visual analysis-enabled Panopticon dashboards into their own applications.

The platform incorporates the ability to visualize data from true real-time streaming sources, including message queues, CEP engines and tick databases as well as federate data from multiple sources.

"By exposing this feature through the Java and HTML5 clients, we give users the power to create high quality reports that communicate their findings in easy-to-comprehend graphical format," said Ludvig Sandman, chief architect at Panopticon. "They can even generate and email reports from iPads."