

Fast accurate analysis of counterparty risk has become imperative.

Managing risk exposures by looking at yesterday's data is like driving while looking in the rear view mirror.

A platform combining OLAP-enabled data visualizations and CEP technology offers institutions a way to analyze counterparty risk in real-time.

In many Financial Services organizations, the current “best practice” for counterparty risk management calls for a report to run every night, and a management review the following day to evaluate the risk profile for their organization. Today’s larger, faster, and most importantly, more volatile markets require far more frequent analysis.

Organizations now need to know their counterparty exposure the next minute instead of the next day. The answer appears simple — just run the risk modeling more frequently — but since many models take hours to run on their current infrastructure, the best that can be achieved is often twice-per-day. And twice-per-day counterparty risk analysis is not good enough.

Today’s financial services firms need to have insight throughout the day for adequate risk analysis.

And the markets are getting more and more volatile every day

Interactive Analytical Dashboards

Clients use Panopticon data visualization software to monitor risk limit usage and to analyze risk data generated by an external risk engine. Our dashboards help users spot problems and opportunities in the data faster than is possible with any traditional reporting system.

Combine Panopticon Data Visualizations with CEP Technology

Panopticon visual analysis dashboards connected to CEP engines provide users with the ability to filter, correlate and aggregate real-time event data in an extremely low latency environment.

With data streaming in at more than 1000 events per second and nearly a quarter of stock market trading volume executed by software, Complex Event Processing (CEP) is rapidly becoming a key element in systems for capital markets firms. Because of their ability to be re-configured quickly, CEP engines offer an excellent tool for risk analysts to use in developing their conclusions.

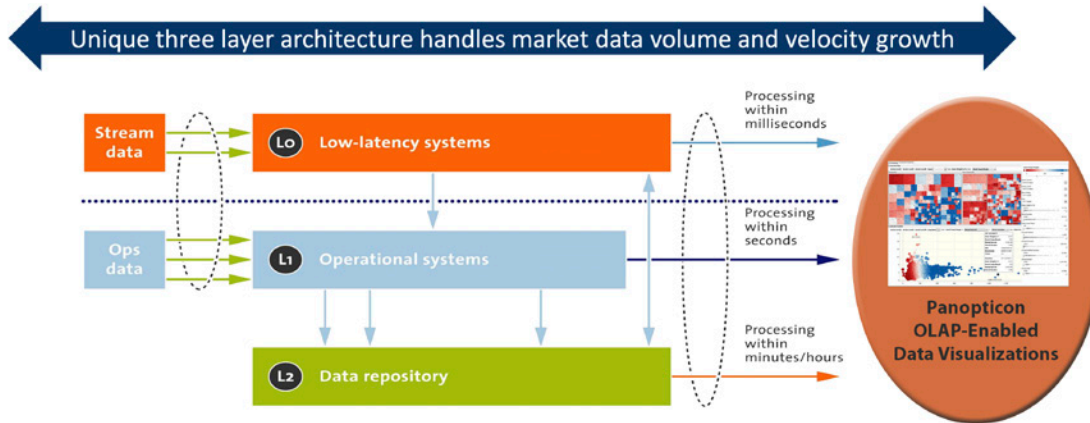
Panopticon’s OLAP-enabled visual data analysis tools allow them to slice and dice the data generated by the CEP engine along with large volumes of time series data (like tick data) and complete their analyses quickly, thereby allowing them to make well-informed, timely and profitable decisions about counterparty risk.

You can connect Panopticon’s tools directly to your CEP engines and incorporate CEP data in your analytical dashboards. You can also federate CEP data with information from other internal and third-party real-time streams and historical time series data stored in row stores and/or column-oriented databases.

This highly visual approach to counterparty risk analysis allows users to understand precisely what their exposures are at any given point in time — based on accurate, up to the second data. Managers can identify problems immediately and see the impact of changes in the market. On a single screen, users can see all details for all portfolios and drill down on demand to display as much detail as required to understand a potential problem or opportunity. They can also view aggregated exposure across all portfolios, desks, offices, and regions. Panopticon’s extensive filtering controls make it easy to isolate outliers and uncover trends and patterns that are difficult, if not impossible, to spot in traditional reports.

“Panopticon makes the perfect set of visualization tools for CEP. And you can quote me on that!”

Marc Adler
Blogger and Financial Services Systems Expert



A platform incorporating Panopticon's OLAP-enabled visual data analysis software, CEP engines, column-oriented databases, and row-oriented databases offers a unique three layer architecture optimized for capital markets applications. The system is able to handle multiple real-time streaming feeds from trading systems and external data providers. It allows managers to analyze counterparty risk using all available historical information combined with up-to-the-second market and trading data. They can spot problems quickly — often within seconds.

Analyze Risk Data Effectively

Whether you are looking at risk in real time, intraday, end of day, or on a historic basis, this flexible platform is adaptable to the needs of very large as well as smaller banks, hedge funds and mutual fund companies. Panopticon supports key functions that make risk analysis much more effective and efficient, including the ability to:

- Subscribe to full and parameterized streams from a CEP engine.
- Display and interact with hierarchies like book structure, product structure, counterparty structure, geographic, industrial, issuer rating, asset class, and so on.
- Dynamically change additive hierarchies and aggregate values based on end-user interaction.
- Drill and jump between data dimensions (for example, jump from book to positions to instrument to counterparty).
- Perform risk aggregation and netting.
- Handle non-additive data sets like Value at Risk (VaR) where the aggregates must be retrieved from an external risk calculation engine.
- Time window and time period analysis to identify delta changes between time periods.
- Visualize trends, clustering, correlations, and outliers.

The system allows managers to monitor data from real-time market feeds, trading systems and other sources using an intuitive and interactive web-based interface that allows in depth analysis of fast changing risk information

Multiple Deployment Options

The Panopticon platform is available in three versions:

- **Panopticon Developer SDK** allows developers to embed our in-memory StreamCube™ OLAP data model and data visualizations into their own applications. The SDK supports code-level integration with existing enterprise applications, client/server, or web-enabled, thin-client deployments. The SDK supports .NET WinForms, Webforms, Windows Presentation Foundation (WPF), or Java Swing.

- The **Panopticon EX enterprise application** is fully productized system designed for rapid deployment at the workgroup or enterprise level. The platform includes a desktop authoring tool that allows power users to assemble and publish new monitoring and analysis dashboards to the web.
- Our **Rapid Development Kit (RDK)** combines the ease of use of Panopticon EX with the flexibility of the Panopticon Developer SDK. It allows you to build visualizations or complete dashboards quickly in EX and embed them as objects in your applications. This means you can complete quite sophisticated development projects in just a few hours with minimal coding. It also puts control over the design of the dashboards into the hands of knowledgeable business users who understand best how to visualize the information they're looking for.

Panopticon Software

Panopticon visual data analysis helps people make timely, insightful decisions based on up-to-the-minute data. Companies can implement these tools quickly and increase the value and utility of existing decision support systems.

Panopticon's platform excels in three areas:

- World class interactive information visualizations designed for fast comprehension of static and time series historical data, including Treemaps, Heatmaps, Scatter Plots, and many more.
- Ability to connect to virtually any data source, including real-time streaming feeds, CEP engines, column-oriented databases, row stores, and proprietary data formats.
- Support for fast deployment in a wide range of IT environments.

Contact Us

USA +1 646 912 8444
UK +44 20 7877 0640
Sweden +46 853 480 480
www.panopticon.com

December 2010
Counterparty Risk Analysis
© Panopticon

The information in this document is subject to change without notice and is offered for informational purposes only.