

**J**PMorgan entered production early this year with an electronic trading application which uses a .NET-based treemap tool for instantly analyzing client sales.

“The treemaps give us a clear picture in real-time of what’s happening across a large volume of (sales) data. This is something we’ve never been able to do before, and the feedback from our clients is quite positive,” notes Daniel T. Marsh, a London-based project manager in JPMorgan’s electronic trading area.

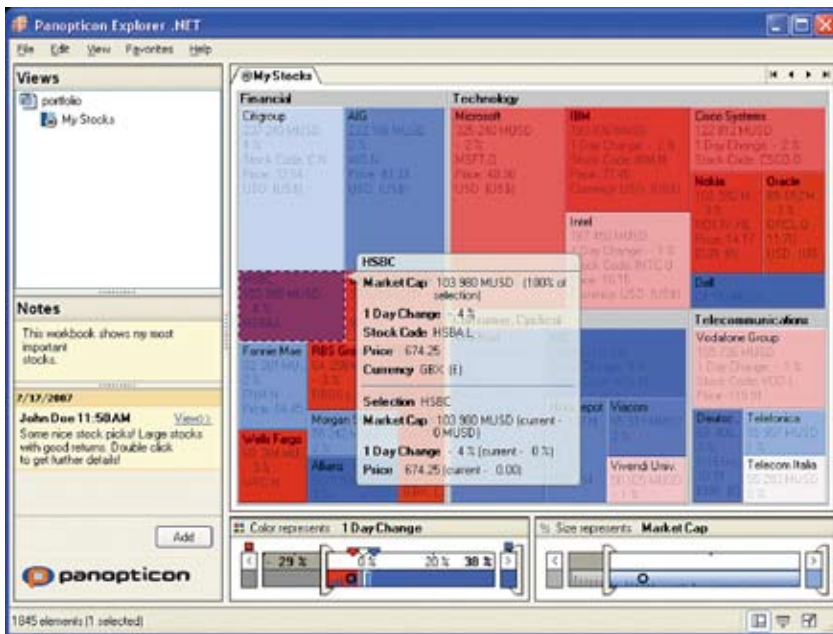
The treemap was provided by visualization software vendor Panopticon, Inc., which recently switched its lead software development platform from Java to .NET. The reason? With JPMorgan and so many other big banks today starting to do real-time financial analysis on top of Windows, Panopticon felt it was smart to go with the flow.

Consequently, within the hotly competitive financial climate, Windows shops can now be the first to get relief through the very latest advanced visualization tools, according to Panopticon president Sam Giertz.

Geared to giving banks and other financial firms an immediate understanding of up-to-the-minute information, Panopticon’s visual business analysis software ranges from classic treemaps to new time series-capable bar charts, an upcoming innovation

# JPMorgan and Windows Customers Sway Visualization Vendor Toward .NET

By Jacqueline Emigh



Panopticon’s software products are being deployed by banks, brokerages, and other financial services firms across risk, portfolio, performance, and technical analysis disciplines, as well as for tracking both trade flows and fund of fund cash flows, according to Giertz.

Upon receiving data feeds, the software presents the information in graphical format, to make it easier for analysts to detect problems and uncover new business opportunities.

Only about two-and-a-half years ago, the vast majority of Panopticon’s customers relied almost exclusively on Java for financial visualization applications. “At that time, only a little bit of ActiveX technology was sometimes thrown in,” Giertz recalls.

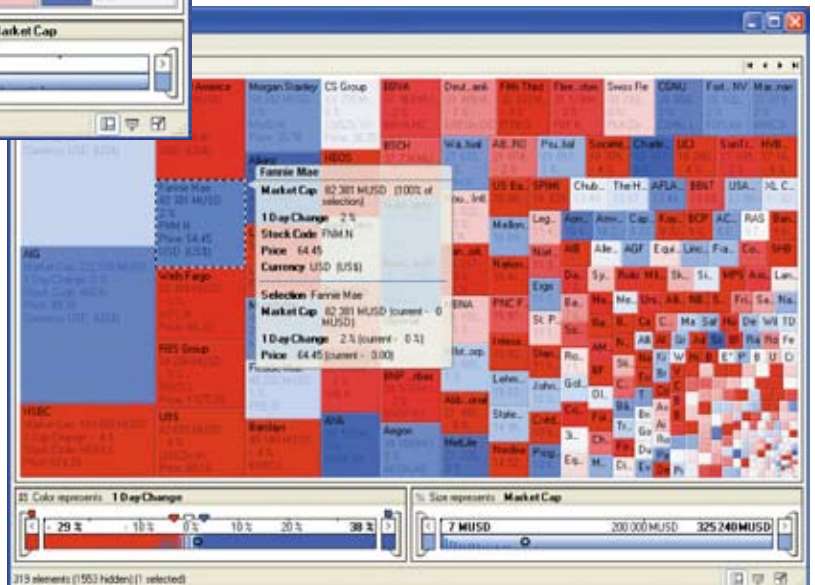
But by now, the ratio of .NET to Java customers

*The software uses colors and sizes to quickly illustrate data, and users can scroll over or drill down on the screens for more information.*

dubbed Sparklines, and out-of-the-box adapters to multiple real-time data feeds.

“We are not leaving Java behind,” Giertz says. “Java is still very important to us. But where we used to introduce new features on Java first, we’re now bringing them out on .NET first.”

At JPMorgan, before launching Panopticon’s new real-time trading application, JPMorgan implemented a software development kit (SDK) version of Panopticon’s visualization tools on the credit analysis side.



has progressed to about 50/50, with the proportion on the .NET side continuing to climb.

"We've found that .NET is fast becoming the preferred choice for (visualization) tools, especially in the big banks," he elaborates.

Although concern over customers' wants and needs isn't exactly unusual among software vendors, platform preferences are particularly important to Panopticon, given the company's business model.

"We're in very close touch with customers, because we do things from so much of a research angle. Our tools are more advanced and value-added, because they're based on solid research," according to Giertz. Fancy but relatively useless software gadgets, superficially embellished with 3D effects, simply "are not us," he maintains.

JPMorgan's Marsh corroborated Panopticon's strong customer orientation. "Panopticon is extremely responsive. They've been very keen to make a difference, and to make things happen for us," contends the project manager.

But Panopticon's focus on conducting research with customers isn't all that surprising, when you realize that the visualization software at the heart of the current line-up was first developed internally at a market brokerage house.

Way back in 1999, when Giertz was chief technology officer at Brunswick Direct, he began working with two developers at the brokerage around how to make good investment decisions in an emerging environment of multiple real-time data streams.

After the trio of Brunswick Direct employees produced the first version of the Panopticon system, Panopticon got spun off from Brunswick as an independent company in 2002.

#### DEVELOPMENT FLEXIBILITY

But there's another reason, too, why the visualization vendor is now emphasizing .NET over Java as a development platform. ".NET is very flexible – so it's very powerful to develop on," according to Panopticon's president.

As Giertz tells it, .NET helps to support the tool maker's own interest in creating an increasingly open plug-in architecture which is highly customizable to customers' specific requirements.

Beyond future plans for additional visual business intelligence tools, Panopticon already provides out-of-the-box plug-in connectors to several real-time data feeds, message queues, and financial databases, including Reuters, SonicMQ, Tibco, and Bloomberg offerings. More adapters are on the way.

Several plug-ins have been co-developed with banks. For example, Panopticon worked with JPMorgan on building the SonicMQ adapter, says Marsh.

Currently, the vendor is in co-development with another big bank around an upcoming adapter to Kx Systems' KDBplus, according to Giertz.

JPMorgan now uses Panopticon's treemaps feature to analyze data in its SonicMQ message queues. Essentially, Panopticon's treemaps display rows of data as groups of rectangles designed to be arranged, sized and colored for graphically depicting underly-

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ing data patterns.

In JPMorgan's electronic trading area, the treemaps help analysts keep a close watch over the accuracy of sales data. If an aspect of the data seems unusual, it shows up as an anomaly.

"This could mean that some (of the information) is incorrect. We then follow up with the client or trader to find out whether this is so," Marsh explains.

Amid a throng of other tool vendors, Panopticon also tries to differentiate itself by offering a wider scope of functionality. In fact, Panopticon first made the move to put .NET ahead of Java soon before creating its new Barseries tool, another feature co-developed with a large bank.

#### TIME SERIES VISUALIZATION

Introduced in Panopticon Developer .NET 4.4, the latest version of the company's SDK for Windows, the Barseries tool, adds a time dimension – along with considerable other new functionality – to conventional bar charting.

Barseries can serve as a time series visualization of one or several parallel time series, according to Giertz. With the addition of this time dimension, customers can quickly analyze changes and trends over time.

The Barseries tool can also act as a graphic pivot table – replacing plain numbers with bars or different colors and sizes for communicating values – or as a standard bar chart, with the added capacity for updating thousands of data points in real-time.

JPMorgan's Marsh says he hasn't tried out Panopticon's Barseries yet, because his area at the bank now uses other vendors' products for bar charting. But Marsh is definitely interested in taking a look at Barseries – and he hasn't heard of any other bar chart tools out there that offer a time dimension.

Marsh does have one item on his wish list. He'd like to see Panopticon add a time series element directly to treemaps, too. "That way, we could compare our results over time," he says.

The vendor also produces several versions of its software for handling and presenting data. The Panopticon Explorer Professional and Explorer Premium editions both run on Windows, with the Premium version adding the ability to connect to manage real-time streaming data, and to connect to external databases and OLAP cubes. The recently rolled out Explorer .NET 1.3 introduces connectors to both SonicMQ and real-time data feeds from Reuters.

On the other hand, Panopticon Enterprise, a Web-deployed product, is available for either .NET or Java. Like the Explorer Premium edition, Panopticon Enterprise supports real-time streaming data, and it can connect to outside databases.

Aside from JPMorgan, other large banks using Panopticon's products on various platforms include Bear Stearns and Citibank, to name just two.

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