1. What is Panopticon?

Panopticon makes data visualization software that supports monitoring and fast analysis of constantly changing data sets. Financial institutions, telecommunications firms, retailers, consumer products manufacturers, and other organizations use our tools to make decisions based on data from multiple sources, including *real-time data streams and Complex Event Processing (CEP) engines.*

The Panopticon platform is available as an SDK that enables software companies and corporations to embed these capabilities into their own applications and in our Panopticon EX product designed for fast deployment at the enterprise, workgroup or desktop levels. We also offer our unique Rapid Development Kit; the RDK combines the ease-of-use available in EX with the integration capabilities of the Developer SDK.

Panopticon's clients use the company's data visualization software tools to build highly interactive analytical dashboards to support efficient decision-making, speed up business processes, reduce operational and investment risks, detect anomalies (including fraud), and identify opportunities to increase profits and sales.

Panopticon's platform excels in three areas:

- Transforming data into intuitive, interactive graphical displays
- OLAP-enabled visual monitoring and analysis tools for time series and real-time streaming data
- Ability to connect to virtually any data source, including real-time streaming feeds, CEP engines, relational databases, and proprietary data formats.

The company has offices in New York, Boston, Chicago, London, and Stockholm.

2. Who uses your technology?

We have many successful implementations in a large number of financial institutions, consumer products companies, architecture & engineering firms, and telecommunications companies all over the world.

Our customers use our visualization tools to speed up their business processes, reduce operational and investment risks, detect anomalies (including fraud), and identify opportunities to increase profits and customer value.

Our clients include **JPMorgan Chase, Citi, Electrolux, Societe Generale, Vodafone** and **Citadel**, plus many more companies that we cannot name due to do non-disclosure agreements. We have clients in a diverse range of industries, including financial services, telecommunications, consumer products, and heavy manufacturing.

We also work closely with OEM partners who use our information visualization tools to make their applications easier to sell based on improved usability & customer value. They also use our friendly user interface to clearly distinguish their products from their competitors. Our OEM partners include **Deltek** (project management for civil engineering firms, architects and other project-oriented companies), **Tbricks** (algorithmic trading platforms), **Reuters** (financial services), and **Polystar OSIX** (telecommunications).

3. Are you another Business Objects or similar type of BI software?

No. Many of our customers use Panopticon to complement Business Objects and other BI systems. However, we provide an interactive visual data analysis layer that doesn't exist in standard BI software; this layer is a critical component of a complete system if you are to truly understand and comprehend the data available from your BI system. We also focus on tools that support operational decision-making based on fast-changing data rather than simply reporting. Panopticon allows users to monitor and analyze true real-time streaming data on a tick-by-tick basis if needed.

4. How many visualization types does Panopticon offer?

Our products support all of the visualizations you expect to see in a comprehensive data visualization system. They are designed to visualize both static and time series data and include Treemaps, Heatmaps, Bullet Graphs, Horizon Graphs, Scatter Plots, Stack Graphs, and many more.

Our products utilize a plug-in architecture that makes it easy for us to add new visualizations and we are working to continually develop and implement more interactive visualizations all the time.

5. I thought Panopticon specialized in Treemaps?

We developed one of the first Treemap products that has seen significant acceptance in the financial services industry. Treemaps are very intuitive and our clients find them useful in situations where they need to identify outliers and find patterns in large data sets. However, we also support many other visualizations like Scatter Plots, Bullet Graphs, Horizon Graphs, and Stack Graphs. It's important to give users a choice based on the nature of their data and what they are trying to learn about their data.

It's also important to remember that the user interface is only the tip of the iceberg in terms of our software. The real strength of Panopticon software is in how we handle data behind the scenes – including true real-time streaming data that is constantly being pushed into the system. Our data model and code are designed from the ground up to handle very large datasets and real-time streaming data – no other vendor offers this combination of a great user interface with the ability to handle large databases and real-time streaming data.

6. Can I embed Panopticon into an existing application?

Yes! We have a very comprehensive and easy-to-use Software Development Kit (SDK) that you can use to embed Panopticon software in your other applications. The SDK supports Java (Swing) and Windows .NET (WinForms, WebForms and WPF) environments. Both versions offer the same features and support the same set of functionality.

We also offer our unique Rapid Development Kit (RDK) that allows you to build, publish and embed comprehensive dashboards that are fully integrated into your own applications. The RDK supports Java (Swing) and Windows .NET (WPF) development environments along with all the analysis capabilities of EX Workbooks, including selection and loading of EX Workbooks at run time (either from disk or from our EX Server application).

7. What about enterprise deployment?

Our Panopticon EX product is a complete visual analytics platform that you can implement quickly. Its EX Designer component allows individual users build their own dashboards and connect to all of your existing data sources, including transactional databases, real-time streaming message buses and CEP engines. The EX Server component lets you distribute the dashboards you create with EX Designer to web-based users. .

8. Can you handle real-time data feeds?

Absolutely! Our software and our data model are specifically designed to handle streams of incoming real-time data that is constantly being updated. The StreamCube™ data model incorporated into all of our products can handle hundreds of thousands of updates per second. This means you can connect to streaming feeds as well as the real-time outputs of CEP Engines.

9. Which real-time message buses do you support?

Panopticon products can connect natively to Apache Active MQ, Apache QPID and Sonic MQ message buses. We can also develop connectors to other real-time buses fairly quickly (usually a week or two) upon request.

10. What do you mean by “real-time streaming data”?

The concept of “real-time” can be very confusing, since virtually all software companies that do visualizations say they can handle “real-time” requirements. However, what most of them mean is that their software goes out and requests an update from an external data source when the data is needed; for example, a system might make an update request in order to generate a new graph. The system pulls the updated data from the external source and uses it in the display, and – at the exact moment when the data was fetched – the data is accurate as of that exact moment. But since no further events or updates are coming in until a complete refresh is done, this is real-time by pulling data which is not what we call true real-time.

What we mean by “real-time streaming” is that data is constantly being “pushed” into the system and therefore into the visualization by an external source – not at a regular interval, but instantly, as-it-happens and on a tick-by-tick basis.

11. Which databases do you support?

Our software can work with any relational database or flat file, including everything from Excel spreadsheets to Oracle, SQL Server, Sybase, and DB2. This isn’t a complete list of supported databases; please ask us if you have any special database requirements. We support virtually every database common in business today.

12. Can Panopticon connect to column-oriented databases?

Yes! Column-oriented databases like Sybase IQ are excellent repositories for high volumes of data that must be retrieved quickly. They also support higher information density than more common row-oriented databases and are significantly more efficient in pulling data off disk and/or in caching it in memory. All Panopticon products can connect to column-oriented databases.

13. Do I have to use Excel as my primary data source?

Excel is sometimes used as a data source for Panopticon, but it's certainly not required and in most cases, our customers connect their Panopticon software to relational databases like Oracle, Sybase, SQL Server or DB2.

14. Does Panopticon store data in OLAP cubes?

No. Panopticon does not store data at all. It does not include a data warehouse or a database. Panopticon connects to your external data sources and processes the data through a series of in-memory OLAP cubes in order to facilitate extremely fast interactive analysis of the data.

15. How many products do you currently have?

We offer three major versions of Panopticon:

Panopticon EX is a fully productized system built for deployment throughout the enterprise, at the workgroup level or even on public websites. The software includes connectors for relational databases, including DB2, Oracle, Sybase, Microsoft SQL Server, and MySQL as well as Microsoft Excel and similar "flat file" formats. EX is easy to deploy; in fact, most facilities are up and running with EX in just a few hours.

Panopticon Developer is our Software Development Kit. This is our core technology and we offer this in .NET, Java and Microsoft WPF versions. Programmers use this product to embed Panopticon's visualization tools into their own applications. They can be extended to support all functions of the above products and more. In fact, we use this same SDK to develop our EX product.

Panopticon Rapid Development Kit combines the ease-of-use and fast deployment characteristics of Panopticon EX with the Developer SDK's ability to embed visual data analysis dashboards into your own applications. User can build complete dashboards using the EX Designer tool and then publish them as embedded elements in your own applications. The development cycle for RDK projects is very short; most companies have their first embedded dashboard up and running in less than a day.

16. What are the differences between the .NET and Java versions of your SDK?

Functionally, both versions of our Developer SDK are identical. They support exactly the same set of capabilities and features. The only differences are technical differences related to server and browser requirements.

17. What do I get in return for the support fee?

Support includes access to our help desk and all updates and upgrades to existing software licenses.

18. How is Panopticon different than normal dashboard software

You can build dashboards with Panopticon tools, but our dashboards do much more than simply present data. Panopticon enables a highly interactive, in depth, “lean forward” experience for analysts and managers. With our software, you can:

- Analyze multi-dimensional data
- Federate real-time streaming data with static and historical time series data
- Aggregate on-the-fly to the required level of detail
- Calculate new fields using data pulled from multiple sources
- Slice and dice data
- Drill into data sets and jump between data sets

19. How long does it take to implement Panopticon?

Most people can get up and running with our EX product in a few hours. The software comes with examples and extensive documentation and it is designed to be intuitive and easy to learn for non-IT people.

Custom development using the SDK can vary greatly depending on what you’re trying to accomplish, but we’ve had customers develop their own versions of Panopticon with the SDK in less than a month.

The RDK only requires a few lines of code to implement and most customers are up and running in less than a day.