

A Desktop Data Visualization and Analytics Application

Overview

The client, a multinational manufacturing and services conglomerate, needed an advanced graphical data analytics tool that would allow its engineers to visualize large amounts of data from multiple sources and applications using a common platform. Nagarro built a specialized, yet versatile, desktop application that fulfilled all the client's requirements and allowed them to extend its capabilities using custom analysis modules as needed.

Problem Description

The client, who has a strong presence in industries ranging from automotive, aviation and healthcare to finance, retail and consumer goods; needed an application to allow its engineers to analyze and interpret large volumes of disparate data efficiently. In addition, the application needed to be scalable, allowing custom statistical analysis functions to be integrated based on business requirements. The client evaluated a number of commercially available business analytics systems, and found that none of them were able to fulfill the specialized requirements

of its design and process engineers. Commercial off-the-shelf systems did not offer the interactive data visualization and analytics that were needed, nor were they fully scalable and adaptable. The client needed a robust desktop application that could be used by its large engineering group, and would be able to seamlessly access and analyze data; thus allowing them to save valuable time during the design and optimization of their products. They also required specialized features for data visualization, and an open architecture so that engineers could add custom analysis functions as needed.

Solution

Nagarro worked with the client to understand their business requirements, and developed a comprehensive desktop business analytics application. The solution was designed with an open architecture, to allow easy extendibility and scalability as needed.

Features of the solution include:

- Ability to interface with multiple internal and external sources of data including standard databases and file types
- Real-time, interactive data visualization capabilities to allow engineers to examine data in a number of different ways, using numerous built-in graphical formats
- Capability to use advanced custom filters

to analyze only pertinent portions of large volume data sets

- Ability to add custom statistical analysis functions as needed without detailed programming knowledge
- Scalable architecture to allow extendibility based on future requirements
- Integration with MS Office, including automated, one-click report generation based on predefined PowerPoint templates

Benefits

- Improved efficiency due to quicker and more informed decisions and avoidance of costly mistakes
- Quality decisions made as a result of a better business analytics, with improved understanding of cause and effect relationships
- Significant savings in time as a result of the tool's ability to interface with and integrate data from other applications/tools and automate key tasks
- Reduced software licensing cost, ownership of IP by the client allowed deployment company-wide