IBM and SAS: Smarter, faster, cost-effective data mining

Identifying strategic business opportunities and understanding customer behaviors and market trends depend on effectively extracting and analyzing key information from multiple sources and systems. Yet many organizations today are missing vital facts and figures that lie buried in mountains of unwieldy code or silos of data.

Even those organizations with strong data warehouse and analytical talent are often challenged by the growing amount of data to be analyzed. Some analytical tools are limited to particular algorithms, and do not offer data manipulation techniques to get the disparate data sources integrated. As a result, quantitative experts can spend valuable time gathering and transforming data before they can even begin to build the predictive models to solve business problems.

Highlights

- *SAS® Enterprise Miner™ software is designed to streamline the entire data-mining process—from data access to scoring deployment—to help extract actionable insights and gain a competitive edge.*

- *IBM® Power Systems™ servers provide a data-mining platform that can improve reliability, performance and scalability for a wide range of data mining projects.*

- *The powerful combination of SAS Enterprise Miner software on IBM hardware provides a comprehensive, integrated data mining solution for discovering patterns and trends.*

To meet these challenges, organizations need an IT infrastructure that facilitates data mining across multiple platforms and delivers actionable analytical information for improving business processes. IBM can help organizations achieve this goal with a flexible, resilient architecture that supports advanced applications for mining large quantities of data. Furthermore, a powerful combination of the SAS Enterprise Miner on IBM Power Systems servers may be able to help streamline the entire data mining process from data access to model assessment so that better decisions can be implemented faster than ever before.

SAS Enterprise Miner seeks to simplify the data mining process
The SAS Enterprise Miner workbench is designed to optimize the time data miners have available to create highly accurate, predictive and descriptive models. The workbench incorporates data mining best practices and self-documenting features that save time, increase effectiveness and build improvement of business processes. SAS Enterprise Miner supports all necessary data-mining tasks within a single, integrated solution while providing flexibility for collaboration with IT departments and domain experts.

Key features include a framework for end-to-end data mining—including sampling, exploration, modification, modeling and assessment phases within a high-performance, grid-enabled workbench—and the most complete suite of advanced modeling techniques in the market today. With the integrated set of tools available in SAS Enterprise Miner, business managers and IT experts may be able to collaborate more efficiently, share models quickly and reduce time spent on manual coding.

SAS Enterprise Miner offers flexibility as a powerful part of an integrated information delivery strategy. The customizable modeling environment is designed to enable users to add tools and include personalized SAS code so that they may tie their analytics into the SAS Enterprise Intelligence Platform for an end-to-end process of creating and sharing enterprise intelligence.

IBM servers seek to optimize performance
IBM offers an open, standards-based portfolio of servers, storage systems and enabling technologies that can help organizations successfully implement SAS Enterprise Miner.

Many organizations already choose to run SAS software on IBM servers because of their reliability and performance. Enhancing the performance of core business intelligence (BI) applications may help organizations align IT resources with business goals and obtain a faster time to intelligence.

As a platform for SAS Enterprise Miner, IBM Power Systems servers based on IBM POWER™ processors are designed to improve reliability, performance and scalability for a wide range of data mining projects. Running SAS Enterprise Miner on IBM Power Systems servers enables companies to perform business mining functions more frequently and on more mining projects concurrently and still receive fast turnaround times.

IBM Power Systems designed with POWER6™ processors provide price/performance advantages that potentially benefit data-intensive and compute-intensive software such as SAS Enterprise Miner.

An example: Benefits for fraud detection analysts

Data mining plays a key role in helping fraud detection analysts perform effectively. Running SAS Enterprise Miner on IBM Power Systems servers helps analysts in these specific ways:

- *Saves time—SAS Enterprise Miner is integrated with IBM InfoSphere™ data warehouse, which means no hand-coding of models is necessary—an advantage that can save a majority of the time previously required to implement models on the database. In addition, removing the third-party coder removes the possibility that the analyst's intention for the model gets lost in the coding process.*
- *Exploits parallel scoring—Analysts can create a model in any environment and implement it in IBM DB2® software. Using SAS Enterprise Miner and the automatic scoring modeler, analysts can score data in parallel, drastically reducing scoring time. The time savings is a result of the parallel database utilizing parallel execution that leverages the performance of IBM POWER processors.*

- *Faster model refresh; ability to rapidly change models—Analysts can create an XML object in the database to change models; they do not have to create programs to implement models and don't have to change the process if they change models. To quickly modify a scoring model, analysts need only re-create a modified XML object. They can thus modify multiple iterations of the scoring model to get meaningful results with faster turnaround times.*

IBM and SAS streamline BI management

By running SAS Enterprise Miner software on IBM Power Systems servers, organizations seeking to streamline the data-mining process can lower the total cost of ownership of their data mining systems while making the most of every fact and figure for key decision making. Building actionable strategies based on patterns and trends discovered with data mining can help your organization stay ahead of the competition.

For more information

To learn more about IBM, SAS Business Intelligence solutions and SAS Analytics Solutions, please contact your IBM marketing representative or IBM Business Partner, or visit the following Web site: **ibm.com**/systems/power

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