



SAS® Business Report

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Dear Readers,

In most organizations, data volumes are continuing to double every 15 to 18 months, making it more important than ever to streamline analytics. The latest method? Putting BI, analytics and data integration processes *inside* the database. Read on to find out how.

Of course, that information is useless if your organization hasn't bought into the power of analytics. Thornton May provides a how-to on selling analytics to the higher-ups.

We also have Peppers & Rogers on mastering your customer data, credit risk expert Bart Baesens, and much more.

Happy reading!
[Anne-Lindsay Beall](#)
Editor

SAS News

Use SAS® to get more power out of your database

Move key components of BI, analytics and data integration processes from the server or desktop to inside the database and help shorten your time to intelligence

By Keith Collins and Scott Van Valkenburgh

Whether it's through advancements in data transfer, parallel processing or grid computing, SAS has a strong history of harnessing new technologies to manage complex computations and to increase the performance and scalability of high-volume data processing.

Today, as data volumes continue to double every 15 to 18 months in most organizations, the ability to prepare, process and streamline analytics in time to make an impact on daily operations is more important than ever before.

The latest way to improve the timelines of data processing is a solution from SAS that leverages database technology to reduce data movement and streamline analytic processes. The solution will embed core data transformation, analytic and business intelligence (BI) applications from SAS in the enterprise data warehouse engine.

Once these advanced capabilities are in place inside the database, businesses can reduce data movement and leverage the computational power in the database engine to increase analytical exploration and action.

Technological advancements make it possible

In the past, this level of integration was a technological challenge. Databases were not designed to perform massive analytical queries alongside short, transactional queries in the same environment. Technology has advanced significantly, however, to support both transactional and analytic applications in a single database.

What has changed? Databases have become more scalable and parallelized. They are becoming more like "data grid appliances" that can handle distributed computations across systems. This change, in turn, better supports the heavy CPU demand required for running analyses alongside data transformations.

The benefits of receiving the power of SAS while significantly reducing the movement of data?

- Organizations can become more responsive and reduce costs associated with performing analyses on their data.
- Information producers can now focus on business opportunities rather than the mechanics of accessing and analyzing their data.
- Analytic solutions – like claims fraud, risk management, customer up-sell, demand forecasting and parts optimization – will deliver speed and accuracy to the business while reducing the burden on IT.

SAS has always been vendor-neutral and platform-agnostic, giving customers greater flexibility and supporting their investments in legacy systems. Now, the company has gone a step further by announcing plans to support research and development efforts to develop deeper integration of its BI, analytics and data integration software to execute key elements within database engines. This advances SAS' goal to provide a flexible, cost-effective platform to maximize enterprise data warehousing investments for in-database analytics and BI.

Banking customer realizes benefits of in-database processing

Consider, for example, a large US bank that needed to comply with the USA PATRIOT Act requirements on stopping the proliferation of money laundering throughout the United States. Analyzing data from inside a large Teradata database, SAS created a surveillance and analysis process to detect and report criminal financial activities across the entire organization.

Now that SAS predictive models are integrated within the Teradata engine, analysts can identify and address unusual or suspect patterns or anomalies more quickly. The new in-database solution also speeds the process of refining detection measures to more accurately report exceptions throughout the enterprise.

The bank's achievements reflect the dual goals of SAS' in-database effort:

- Reduce data movement for businesses that focus on centralized data storage.
- Reduce the cost and time constraints of analyzing data.

Putting SAS Analytics into the database accelerates the analytic process, addresses governance regulations and speeds the delivery of BI to all levels of an organization. Blending the SAS strengths of BI and analytics with the core strengths of databases will make BI and analytics more pervasive throughout the organization.

Of course, this level of product integration depends on heavy partnership investments. Currently, SAS is identifying key database vendors as partners for this initiative, in a process that will be driven by market demand, customer direction and input.

It boils down to this simple equation: Less data movement = faster analytics, and faster analytics = faster delivery of real-time BI throughout an enterprise.

Bio: Scott Van Valkenburgh is the Director of Platforms and ISVs for SAS. Keith Collins is Senior Vice President and Chief Technology Officer of SAS.

How to sell your boss on the power of analytics

Buy-in and payback and ROI – oh, my!

By Thornton May

One would be hard-pressed to recall any major business intelligence and analytics conferences where keynote speakers and breakout presenters were not asked – frequently, repeatedly and quasi-desperately:

How do I sell BI/analytics projects to my senior managers?
How do I get executive buy-in?
How do I calculate the ROI on the projects I am proposing?

Researchers at the IT Leadership Academy were fascinated by the paradox of high-payback, reasonable-risk BI/analytics projects that were put on the back burner in many otherwise thought-to-be-clever enterprises. We undertook a quick analysis in an attempt to understand what is going on here.

Understanding how money happens

Some readers may recall the famous interchange between bank robber Willy Sutton and the policeman who captured him.

“Why do you rob banks, Willy?” asked the policeman.

“Cause that’s where the money is.”

In many cases, the people asking for BI funding do not really know where the money is or how projects get funded. All organizations have a BUYING PROCESS – sometimes very formalized, sometimes more mood-based – detailing how money happens and how projects get funded.

Very few BI/analytical professionals undertake more than a perfunctory analysis of these processes, deeming, I suppose, such bureaucratic procedures unworthy of their time or attention. This is a BIG mistake. A sidebar finding from the research was that most buying processes in most enterprises would benefit significantly if subjected to rigorous BI scrutiny. In the future, we predict BI applications in IT project governance will generate very high payback.

Those wishing to “sell” BI projects to senior managers would be well-advised to familiarize themselves with the organizational norms of funding. At GE Capital Solutions, for instance, there has been a preference to fund small “popcorn stands,” or little businesses that will help the organization learn about bigger opportunities. At a major film studio, the BI project sponsor adopted the same language that show-biz people use to greenlight creative endeavors.

Understanding mindsets and mental models

In 2000, the CIO Posse – a group of transitioning and just-retired CIOs – was formed to offer the services of CIO tribal elders to vendor sales organizations seeking to improve their sales at the top of the house. The goal was to get vendor sales personnel inside the heads of potential buyers. To sell something, you must really understand how the person who is buying that thing thinks.¹

Step one toward project success is the recognition that on every issue, at any given point in time, multiple mental models may be at work. The analytical community can no longer merely observe, passively consume or merely relate to the mental models swirling around enterprises about what BI and high-end analytical resources can do.

You will need to inventory the multiple mental models at work in your areas of engagement. You will need to intervene and remediate mental models toxic to BI's ability to add value. Mental models are important. They can be dysfunctional. They should be monitored and managed – and in many cases upgraded.

An exercise to try at work

A fascinating exercise is to assemble your BI and analytics teams and have them draw a one-page picture of the universe that faces the executives who have been asked to fund the initiative. Next, arrange a lunch with those executives and ask them to draw their own one-page picture of the universe facing them. The differences in those “maps” will be important. The conversation about those differences will be helpful in achieving the shared mind that leads to project approval.

As you are inventorying mental models, it is a good idea to get a feel for the general mental model at work in the environment. Historians tell us that science proceeds by alternating between periods of normal science, during which investigators do research within a commonly accepted paradigm, and crises, during which investigators seek a new paradigm because of problems with the old one. The tone of your pitch should reflect the prevailing gestalt. You should know whether the executives you seek to work with are in an order-shattering mindset, an order-affirming mindset or an order-creating mode.²

As a futurist, I believe most switched-on organizations have to understand that the world has changed, that existing modes of information management are not good enough and that new practices need to be deployed. As an on-the-ground worker in a living, breathing and frequently reluctant-to-change organism, you will need to fit your message into the mental model at work in your enterprise. Good luck!

¹ Gerald Zaltman, *How Customers Think: Essential Insights into the Mind of the Market* [Boston: Harvard Business School Press, 2003] and Paco Underhill, *Why We Buy: The Science of Shopping* [NY: Simon & Schuster, 2000].

² T.S. Kuhn, *The Structure of Scientific Revolutions* [Chicago: University of Chicago Press, 1962]. Stephen Skowronek, *The Politics Presidents Make: Leadership from John Adams to George Bush* [Cambridge, MA: The Belknap Press of Harvard University Press, 1993], 20.

Bio: Thornton May, Executive Director and Dean at the IT Leadership Academy, is one of the premier visionaries in the IT industry. www.itleadershipacademy.com

SAS in leaders' quadrant for business intelligence platforms

Evaluation based on ability to execute and completeness of vision

CARY, NC (Feb. 04, 2008) – SAS, the leader in business intelligence, has been placed in the Leaders Quadrant of the *Magic Quadrant for Business Intelligence Platforms, 2008*,¹ by Gartner, Inc.

"SAS customers clearly embrace our vision," said Jim Davis, Senior Vice President and Chief Marketing Officer at SAS. "We not only offer a robust platform, but also business-specific applications, such as financial services fraud detection and retail merchandise replenishment, that fully exploit SAS' power."

According to Gartner, "Leaders are vendors that are reasonably strong in the breadth and depth of their BI platform capabilities, and can deliver on enterprisewide implementations that support a broad BI strategy. Leaders articulate a business proposition that resonates with buyers, supported by the viability and operational capability to deliver on a global basis."

With award-winning analytics and data integration, SAS[®] Business Intelligence helps organizations, including 96 of the Fortune 100, understand the past, monitor the present and quickly predict outcomes to meet any performance objective, such as maximizing shareholder value, predicting inventory levels or monitoring defects.

"SAS offers an unmatched breadth of capabilities now deployed at over 43,000 customer sites worldwide," said Davis. "SAS innovation continues with new, powerful visualization capabilities. Now, customers can view information in highly intuitive, visual formats. Our visualization takes analytics to the next level," said Davis.

SAS also speeds delivery of business intelligence throughout all levels of organizations. The SAS In-Database initiative, announced with Teradata Corp., will enable businesses to run and optimize key aspects of SAS business intelligence solutions and analytic processes *within* leading relational database systems. The result? Decision makers will have faster access to results, and better insights.

"SAS Enterprise Intelligence Platform is a powerful resource for our teachers," said Jim Hirsch, Associate Superintendent, Academic and Technology Services, Plano (Texas) Independent School District. "Because SAS is powerful, yet simple to use, teachers don't guess how to maximize student success; they now analyze individual student strengths and know what curricula will produce results. This greatly increases our effectiveness."

About the Magic Quadrant

The Magic Quadrant is copyrighted 2008 by Gartner, Inc. and is reused with permission. The Magic Quadrant is a graphical representation of a marketplace at and for a specific time period. It depicts Gartner's analysis of how certain vendors measure against criteria for that marketplace, as defined by Gartner. Gartner does not endorse any vendor, product or service depicted in the Magic Quadrant, and does not advise technology users to select only those vendors placed in the "Leaders" quadrant. The Magic Quadrant is intended solely as a research tool, and is not meant to be a specific guide to action. Gartner disclaims all warranties, express or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.

1. Gartner, Inc.. *Magic Quadrant for Business Intelligence Platforms, 2008*, James Richardson, Kurt Schlegel, Bill Hostmann and Neil McMurchy, February 1, 2008.

Master your customer data

Master data management can help companies better understand and serve their customers

By Peppers & Rogers Group

Organizations can't be customer-centric without understanding their customers. Master data management (MDM) aims to do just that: provide insight into the most current information on customers' behaviors, preferences, accounts and more, while helping to avoid silos and data inconsistencies. Although master data management has only recently moved into the mainstream of the marketing lexicon, the idea of creating holistic views of customers has long been the foundation of successful customer strategy initiatives.

MDM is often characterized as a technology solution to the problem of seeing customer and product information across an organization, but it's much more complicated than that, according to Forrester Analyst Rob Karel. "MDM isn't a technology; it's a business capability that can be enabled and needs collaboration across multiple businesses," Karel says.

The need for collaboration is just one challenge companies face when attempting to implement MDM. They also need to make significant investments in time and planning. This prevents some businesses from exploring MDM's potential benefits. Karel sees the biggest hurdles companies have to overcome as executive sponsorship, lack of successful examples and quality of technology available. "There aren't many businesses out there that have done this well across multiple domains," he says. "And many vendors don't provide a total solution; they only appear to."

Even after navigating these issues, the daunting task of adoption is the final hurdle. Like any initiative that requires a new technology component or a shift in process, employees are often reluctant to change the way they do things. The onus falls on the enterprise to help employees adapt to a new system after years of not having to worry about standardized data. For employees to give up control, they need to recognize that customers may be aware of and unhappy about the inadequacies of a system that prevented them from doing business on their terms.

Overcoming these challenges starts with the basics. Although a number of teams may work together on an MDM project, one clear leader should craft the MDM vision and see that it is carried through – and that it encompasses planning, implementation, rollout and employee adoption. Successful MDM has been shown to reduce costs, streamline processes and have a high ROI. Plus, when integrated into a company's customer strategy, it can also improve customer relationships. According to The Data Warehousing Institute, 57 percent of organizations responding to a survey on MDM said using it had increased customer satisfaction.

Better information, better experiences

An improved level of customer satisfaction is not surprising. Converting data into customer insight – and then acting on that knowledge – is critical for companies chasing the holy grail of delivering superior customer experiences. MDM helps offer consistent product information across channels; supports Web self-service for customers who want to access order or personal information online; and helps create marketing communications that are more targeted and relevant. These are just a few of the myriad benefits that drive significantly improved customer satisfaction scores and deeper customer relationships.

A leading distributor of industrial and medical equipment saw the fruits of MDM firsthand. When the company wanted to launch an e-commerce site to serve customers who bought supplies online, its effort was stalled by lack of quality data. Following more than 350 acquisitions that resulted in various data models from the combined product, customer and supplier information, the distributor used MDM to create a standard system for storing and recording customer and product data. Automation is now used to update information about new or changing products, and

a system has been developed to maintain content online for custom orders. Instead of taking six months, updating the 4,000 images in the distributor's online catalog is automatic. As a result, customers who formerly had to wait for products that they typically bought by phone or mail to be available online now see a real-time view of what's available. This total, consistent view of the customer improves the buyer experience, increases sales and locks in loyalty.

A Forrester report by Karel called *Introducing Master Data Management*¹ highlighted one more practical reason to organize data, one that also affects the customer experience: privacy. Laws dealing with consumers' rights to opt out of e-mail, telemarketing or direct mail don't always give businesses the benefit of the doubt when it comes to bad data. If the same customer is recorded twice in a database, will the choice to opt out affect both records? Cleaning up and standardizing data can eliminate problems like that.

No matter how many processes are improved, technologies are upgraded and data stewards are chosen, the most important thing to remember is that any MDM model is only as good as the information being fed into it. And although it's certainly easier said than done, MDM backed by clean data can help deliver maximum return on your customer relationships.

¹ Source: Forrester. Karel, Rob. *Introducing Master Data Management: Achieving a Single Version of the Truth*. November 10, 2006.*

Bio: The Peppers & Rogers Group, founded by Don Peppers and Martha Rogers, PhD, is a consulting firm recognized as the leading authority on customer-based business strategy. www.1to1.com.

Ask the expert

Risk specialist Bart Baesens on credit risk, credit scoring and Basel II

Bart Baesens, PhD, started his academic career as a researcher in data mining for credit scoring and customer relationship management applications. As a former [SAS Student Ambassador](#), he presented his research findings at the 2002 SAS Forum International conference, which strengthened his partnership with SAS. Currently, Baesens is a Lecturer at Katholieke Universiteit Leuven in Belgium and the School of Management at the University of Southampton in the UK.

Baesens also is a guest lecturer for SAS, teaching Credit Scoring for Basel II and Advanced Customer Analytics. These courses are offered as part of the [SAS Business Knowledge Series](#) around the world.

Students and industry experts alike praise Baesens for his knowledge in the areas of risk compliance and analytics. "His inspiring and profound industry knowledge, as well as his enthusiasm for SAS products and solutions, have contributed significantly to SAS' credibility in the Basel II space," says Lieve Goedhuys, Marketing Manager in SAS Belgium.

We caught up with Baesens while he was in Hungary teaching a SAS course and asked about his thoughts on credit risk technologies.

What is the role of IT in credit risk, credit scoring and Basel II?

One of the major problems that many banks are facing nowadays is that data is geographically distributed throughout the enterprise. The first role that IT can play is to set up a data infrastructure, for which SAS has provided some solutions, such as SAS Banking Intelligence Solutions. So you set up a data infrastructure in order to gather all this data into one coherent and consistent data format. And that data architecture can then serve as the input for developing all the Basel II rating systems. The role of IT does not stop there, though, because IT needs to provide facilities for implementing the rating systems and for presenting the results of these systems. IT also needs to provide support for monitoring these rating systems and keeping track of how these systems perform. In that area, the role of business intelligence is becoming very important.

What are the current issues in Basel II, credit risk and credit scoring?

Many issues center on data. Banks need to develop rating systems, but they do not have access to the data. There are a couple of very specific modeling issues, and the first step of modeling is providing data. Next, banks need to think about the number of defaults because Basel II is about modeling the default behavior of customers. Some banks don't have observations on their default behavior, which makes it very hard to develop these models. Another issue in Basel II is how to interpret the guidelines because many of these guidelines have been formulated rather vaguely. That is why it is very hard for banks to put the guidelines into operation and to implement compliant credit risk models that conform to those guidelines.

How do you see banks managing their risks because of the Basel II regulation, or is it more a business issue already?

Banks are becoming a lot smarter. Basel II has put forward a couple of guidelines that not all banks agree with. Basel II basically tells banks how to calculate the minimum amount of capital they need in order to protect their depositors. This is what we call regulatory capital. But banks are also calculating economic capital, or so-called business capital. This is a second amount of capital, which according to them most reflects the risk they undertake. One of the key ideas of Basel II is that you should always model credit risk from a conservative perspective. However, the danger exists that the scenarios assumed are so conservative that they no longer reflect reality.

What are the different trends and practices in measuring risk in Eastern and Western Europe, Asia and the US?

Basel II has been implemented in slightly different ways in different countries because there are

different regulations. I've taught courses in Asia, Europe and the United States. I think the Western European countries were among the most advanced. Many of them have Probability of Default (PD) models, Loss Given Default (LGD) models and Exposure at Default models in place. I think the Eastern European countries will be coming behind. Most of these countries now have PD models and are starting to think about LGD models as well. The major US regulatory authorities only recently adopted Basel II. Now all big American banks need to adopt Basel II as well, and that is why I am heading back there soon to teach four courses.

Are there specific programs regarding Basel II at universities?

Basel II is an area that is not taught at universities a lot. I have a course at the University of Southampton School of Management, where I teach credit scoring, but credit scoring is only one part of Basel II. At the same time, I do think there is demand from the industry for graduates with this kind of knowledge. I get phone calls and e-mails every week asking, "Do you know good students who could help us do LGD modeling and PD modeling?"

When you develop your curriculum, do you take business expectations into account?

My courses are very much business oriented. The first time I taught this course, I did not have that much business experience because I came from the university. Furthermore, I collaborate with a lot of financial institutions, doing projects or validating and implementing Basel II models, which also has given me a lot of business knowledge in the meantime.

What makes your course so popular?

First of all, the current topic: the Basel II Capital Accord, and because in the course I use SAS as a tool. I teach theory in the morning, and then in the afternoon I teach how to illustrate and implement all these concepts in SAS.

Why do you prefer SAS® for risk analysis?

SAS has the nicest environment to work in. It is user-friendly, powerful and an end-to-end solution. I can do data preparing, model building, model evaluation and more. I can do everything with one application

Bio: Bart Baesens, PhD, is a Lecturer at K.U. Leuven and the Southampton School of Management and a guest lecturer for SAS.

Crystal clear

How do you streamline performance management? With a dashboard. How do you dig into areas that warrant further exploration? With data visualization.

By Sandra Gittlen

Consider this: A pipe and supply company in the Pacific Northwest recently found out that its top revenue-generating customers were not its most profitable.

While this notion might take a second to get your arms around, for companies employing performance management tools with data visualization, it's crystal clear.

The company used the activity-based modeling within SAS' performance management solution to analyze customer profitability. Company leaders quickly found, via a rich graphical representation, that salespeople were spending so much time with their "best" customers that they were draining significant resources from the organization.

Today, companies of all sizes are seeing the value performance management tools bring to business intelligence initiatives. While straight BI can provide insight into a specific issue, performance management tools leverage the same techniques to provide a holistic view of an organization. This next level, where business intelligence and performance management mesh, is sometimes referred to as BiPM, BPM or simply PM.

SAS' unique approach to analytics enables companies to reach this next level – going beyond static charts and Excel spreadsheets to deliver multidimensional representations of critical data. With this unparalleled visibility into their data, companies can make real-time, market-leading decisions.

The foundation of this approach, the SAS Enterprise Intelligence Platform, offers users powerful data integration, advanced analytics, optimized intelligence storage and a broad set of business intelligence capabilities. This platform is an integrated, flexible, standards-based, centrally managed intelligence environment that empowers organizations to optimize their decision-making processes through meaningful intelligence from consistent, companywide data.

"It's been an evolution. The first step companies took with business intelligence was to look at performance management to help them manage their budgets. The next step was to give users direct access to BPM tools. Now, companies are using BPM tools with enhanced data visualization so that even users [who] are less familiar with analytics can grasp important trends and make critical decisions," says John Colbert, a Vice President at BPM Partners, a consultancy in Stamford, Connecticut.

Survey says: Data visualization is key

Performance management tools enable companies to define strategic goals and then plan, measure and manage their performance against those goals. They feature a variety of components – including real-time, Web-based dashboards that alert users to important changes and trends – to help businesses link their financial and operational data and create solid, forward-thinking strategies.

This year, half of the respondents to BPM Partners' BPM Pulse Survey of more than 500 executives from a cross-section of industries reported they already have performance management initiatives in progress. About 10 percent of respondents said they have plans to implement performance management in the short term.

The survey respondents ranked dashboarding, which proactively delivers information to users based on customized key performance indicators (KPIs), as one of the top three components

they rely on. The executives also named data visualization as the second most important feature of performance management.

“This shows a huge leap for companies that understand there is richness in their data, but don’t know how to help employees who don’t have the sophistication of training to access that data,” Colbert says.

With the SAS Enterprise Intelligence Platform and the BI and performance management solutions that run on that platform, companies can automate their planning, budgeting, management reporting, financial consolidation, business process management and operational performance management. Results are generated from business-specific KPIs via the dashboard, portal or other customizable feature-rich display.

The data appears in various formats, including color-coded temperature charts and “data movies” that allow users to manipulate an easy-to-use, motion-enabled, graphical environment. These movies and other unique graphical representations are powered by SAS’ patented JMP[®] statistical visualization and discovery software. “Dashboards and data visualization help users to focus on what they know is important and to consume information more quickly,” says Charles Pirrello, Product Manager for dashboards and scorecards at SAS.

Getting to the cause of performance problems

However, Pirrello adds that dashboards are only a first-alert system and should lead users to more discovery. “It’s like saying, ‘We have a problem, and you need to pay attention.’ Their true value is the ability to get users to dig deeper and uncover causes of poor performance using the underlying analytics tool,” he says.

Dennis Drogseth, Vice President at Enterprise Management Associates, a consultancy in Boulder, Colorado, says dashboards can be incredibly beneficial to business users. “They can provide a single pane of glass where users can see what changes are occurring, why they’re occurring and how they impact business performance,” he says.

He adds that this information, delivered through concise graphics, is essential for companies that want to assimilate disparate pools of information, such as that flowing from their ERP, CRM and other systems. “You have all these piles of data that need to work together. Whether it’s for problem solving or service impact and automation, this merging of historical and real-time data is powerful,” he says.

John Burke, Senior Analyst at Nemertes Research in Minneapolis, Minnesota, says that getting a “clean” or “single” version of data is one of the most difficult challenges organizations face, but not doing so can jeopardize performance management efforts. He says, “The hardest part is figuring out what really qualifies as a key performance indicator.”

For instance, he says for a retailer, it might be the difference between the number of sales at close or the number of transactions per shift. “These subtleties can get very complicated,” he says. Burke recommends that business leaders, not IT, determine these parameters.

It’s all about data integrity

In addition to having “clean” data, the ability to pull all that data together with top-notch analytics is just as important, according to SAS’ Pirrello. For instance, he says, a state agency was patting itself on the back for having a significant drop in car accident deaths. The agency credited its own accident prevention program. However, had the agency looked at the whole spectrum of data available, including a 20-year span of statistics, it would have seen that every few years the number of accidents dipped. Pirrello says, “Yes, the numbers they had were accurate, but they weren’t looking at the whole picture. Reports and queries will give you what you want, but to get the ‘truth’ you need analytics.”

In the case of the pipe and supply company mentioned earlier, SAS' performance management and visualization tools let its leaders see the profitability costs assigned to each customer. The tools measured how much it cost the firm for the sales force to spend money on activities associated with customers. "Until the company saw this profitability metric, the leaders had no idea these were not their best customers," Pirrello says.

He adds that performance management is not just a sales tool. It can be used across all departments, including IT, human resources, finance, customer intelligence, marketing and procurement.

For example, a doctor in Children's Services at Duke Medical Center, who had no financial background, used a JMP-enabled dashboard to analyze his billing process. "He found discrepancies and inefficiencies that led him to improve revenue 10 percent to 15 percent over the previous year," Pirrello explains.

In addition to reconciling historical transactions, companies can use SAS and JMP visualization tools to create what-if scenarios that help them plan for future costs and resources. "With visualization, you're not only able to see current values, but you can see how they move through time – the direction and velocity of how they're progressing," Pirrello says. "You not only see where you've been, but also where you're going."

Bio: Sandra Gittlen is a freelance writer in Northborough, Massachusetts.

Events

The Premier Business Leadership Series

<http://www.sas.com/events/ustradeshows/addinfo.html#tdwi-winter08>

April 29-30, London

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<http://support.sas.com/events/sasglobalforum/2008/index.html>

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F2008 Business Forecasting Conference

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June 2 – 3, Cary, NC

Webcasts

Supercharging Your BI with Text Analytics

<http://www.sas.com/events/cm/149049/index.html>

On-Demand Webcast

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<http://www.sas.com/events/cm/172409/index.html>

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