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SAS® BUSINESS REPORT

**Dear Readers,**

No matter what challenges you're facing in your industry, business intelligence technology is helping companies like yours solve problems, cut costs and increase the bottom line. In this issue, we've got stories from the US Coast Guard, Shanghai GM and the retail industry – the common thread? They're all using business intelligence to help them make the right decisions at the right time. And you can, too. Read on to find out how.

Best wishes,

A handwritten signature in black ink that reads "Anne-Lindsay Beall".

Anne-Lindsay Beall  
Editor, *SAS Business Report*

## SAS Launches Software Reseller Program

The business intelligence (BI) market is among the fastest growing worldwide\*, and SAS will add to that growth with a new channel network partner program for value-added resellers (VARs), systems integrators and independent software vendors. These outside vendors will sell SAS software to small and mid-sized businesses in the Americas, helping the company deliver BI software efficiently and cost-effectively.

“Alliances play a critical part in SAS’ overall business strategy for delivering and implementing SAS software. Now we’re going to the next level by including a ‘sell-through’ approach,” says Dr. Jim Goodnight, CEO of SAS. “Building out our network of partners to formally include VARs gives us an excellent opportunity to build our revenue stream and ensure that businesses of all sizes have better access to the power of SAS Business Intelligence. These relationships will be invaluable to the future success of SAS.”

Headed by industry veteran Miles Mahoney, who has built partner channel programs for Borland Software, Business Objects and Crystal Decisions, the new business unit will strengthen SAS’ position as the top independent software vendor in the BI market.

With an established infrastructure that includes dedicated partner development teams, internal channel sales teams and system engineers, SAS’ channel program will focus on the SAS Enterprise Intelligence Platform, including business intelligence, data integration and advanced analytics.

### Helping partners, increasing market share

“This channel sales program will significantly increase SAS’ market penetration by authorizing our channel partners to resell the most comprehensive business intelligence software on the market,” says Mahoney, Vice President of SAS’ Strategic Alliances and Channels division. “SAS is a recognized and trusted brand that resellers can leverage across industries, and our world-class support ensures that partners can stay focused on meeting the needs of their customers. By implementing a channel-neutral model and investing our sales efforts into top-level industry VARs, we’ve created a win-win dynamic for us, our partners and our customers.”

SAS’ reseller program includes VARs such as:

- Aviana Global Technologies.
- Claraview.
- COMSYS.
- Creative Computing.
- Mainline Information Systems.
- Qualex.
- ThotWave.

SAS is also using its partnerships with well-known companies such as HP and IBM to expand the program. These resellers are reaching into new markets, helping organizations derive value from internal data that will affect their success.

“Leveraging the value provided by the reseller channel is an excellent way to drive profitable revenue growth and increase market share,” says Stephen Graham, IDC Group Vice President for Global Software Business Strategies. “With this announcement, SAS is clearly stating its intention to further extend its market reach to include any organization requiring true enterprise intelligence.”

*\*IDC, “Worldwide Business Intelligence Tools 2005 Vendor Shares,” July 2006*

## **Protecting the Public Trust**

**Performance measurement as an ethical responsibility? At least one U.S. military leader sees it that way.**

*by Kelly LeVoyer*

To continue to meet America's 21st century maritime threats and challenges, the U.S. Coast Guard initiated the Integrated Deepwater System program, the largest and most innovative acquisition in the Coast Guard's history. Deepwater is not just "new ships and aircraft," but also an integrated approach to upgrading existing assets while transitioning to newer, more capable platforms with improved systems for command, control, communications, computers, intelligence, surveillance and reconnaissance, as well as innovative logistics support.

Using business intelligence and analytics from SAS, Rear Admiral Patrick Stillman, the program's Executive Officer, and his team can monitor the performance and progress of the program, as well as provide the reporting required by the governing and oversight bodies in the U.S. government.

sascom Editorial Director Kelly LeVoyer spoke with Admiral Stillman on the virtues and challenges of performance management in the public sector.

### **Can you give us an idea of the breadth and depth of what you are tracking and reporting with Deepwater?**

Deepwater is actually a system of systems that addresses the nation's abilities to contribute to homeland security and homeland defense as well as the execution of the Coast Guard's traditional missions. This comprises potentially a \$24 billion investment by the U.S. taxpayer over the next 25 years. It includes not only the construction of new ships and the procurement of new aviation assets, but also the infusion of command and control information technology capabilities and surveillance capabilities that allow these assets to perform their designated missions. We are challenged with assessing performance, as well as predicting performance through predictive analysis over the course of the program's implementation.

We are also charged with assessing the support and operational requirements of these assets over their life span. So with that, we are looking not only at efficiency – as far as the cost of operation of these assets – but also effectiveness, in terms of the return on investment the assets provide to the nation's security and defense needs.

For all of this, we have developed a balanced scorecard approach that really lets us "live in the light," or operate with a greater sense of real-time knowledge.

### **Why is performance management important to government in particular?**

I think that performance management in the public sector is as important, if not more so, than it is in the private sector. In the Coast Guard, the Department of Homeland Security and across the administration, people truly feel the responsibility to be attentive to the public trust, to leave it better than we found it. So, the commandant of the Coast Guard directed as a strategic precept this issue of stewardship across all dimensions of the organization. We feel that in the execution of the Deepwater enterprise, stewardship has to be a fundamental prerequisite for success and execution.

The Department of Homeland Security has a strategic foundation built on organizational excellence and we've worked hard to "operationalize" that concept. The U.S. taxpayer expects us to be both efficient and effective, and we take that very seriously. Also, the president and the administration tied budgeting and performance together so that better performance leads to more concrete funding support. Within this framework, and infused with the ethos of public service, we approach performance management not only as a necessity but as a calling.

**You are known for having a unique passion for the discipline of performance management. How have you instilled this passion across your organization?**

We greatly encourage the concept of constructive knowing: finding metrics and data that provide us with the business intelligence necessary to make the right decisions at the right time. We're measuring efficiency and effectiveness in tangible ways with a balanced scorecard, and we try to bring that scorecard to light so that it really becomes the fulcrum of a learning organization, for what I call inspirational awareness.

I can't think of a better environment than where truth and facts prevail – where collaboration, cooperation and awareness are commonplace attributes. It's about creating trust and relationships among colleagues and with our customers [the men and women of the Coast Guard] by truly giving people a sense of understanding so that they feel comfortable being held accountable and they can benefit from the information.

Equally important is the element of adherence to public law. For example, the Government Performance Results Act requires that outcomes be measurable and linked to the performance of the Coast Guard's mission: Have we been successful in attending to the maritime security needs of the nation? In seizing illegal drugs? In protecting our maritime borders from illegal immigrants? Have we been successful in saving a person in need with our search and rescue capabilities? Have we been successful in protecting our fishery stocks such that our natural resources can serve the needs of a maritime nation? All of these measures are part of a learning organization and, I believe, are an important part of a healthy and constructive enterprise.

**Is the performance management system helping you achieve your mission?**

Most definitely. It provides the foundation to allow us to focus on the right things at the right time and make better decisions that help us achieve a better return on investment. That's not easy for a multimission organization that is confronting the challenges of a post-9/11 world.

The asset measures certainly help us, for example, keep on top of the acquisition and production of new assets. For example, we have earned value management metrics directly tied to the costs and schedules of the construction of new ships and aviation assets. This provides real-time input to both industry and the government about the state of the program, including elements of human capital management. We apply survey instruments to measure morale as it relates to the tasks at hand, and we measure the satisfaction of the men and women of the Coast Guard who operate the ships or aviation assets – to assess their perspective on the performance of assets that are being produced under the Deepwater umbrella.

Long-term, our desire is to use the balanced scorecard to focus on people, performance and partnership to help define the performance plan for employees. With the Department of Homeland Security leading the movement toward performance-based evaluations in government, we are right now looking at integrating the balanced scorecard as an input into performance evaluations. I'm convinced this is the right way to do business. I think it becomes a

force multiplier in attaining superb execution and fostering a sense of accountability and knowing.

**What is the role of performance management with regard to gaining and maintaining the trust of your organization and of the public?**

I'm unquestionably accountable for the stewardship of the public trust, and the only way I can attain the public trust is to help the people of the Coast Guard be successful in their missions. How better to help than to give them a sense of knowing with the valuable construct of a balanced scorecard that allows them to embrace objectivity and awareness as it relates to their responsibilities? I feel it really becomes a tool that I am ethically obligated to provide my people because I'm blessed with the very best in that regard. The balanced scorecard and the discipline of business intelligence have provided a foundation that we hope to build on. It's how we're doing business every day.

## **SAS No. 1 in Data Warehouse Generation and Access Sales**

According to a report issued by top analyst firm IDC, SAS is the world's number one vendor in both data warehouse generation and data warehouse access software sales.

In its "Worldwide Data Warehousing Tools 2005 Vendor Shares" report (Doc #203229, Aug. 2006), IDC showed sales of SAS' data warehouse generation software increasing from \$198.8 million in 2004 to \$224.0 million in 2005, a 12.7 percent increase. Also, SAS saw a 12.3 percent increase in revenue for its data warehouse access software, rising from \$502.3 million in 2004 to \$564.3 million in 2005.

IDC defines the data warehouse generation market as data integration and access, unified development environment, and third-generation language tools. IDC calls data warehouse access a derivative of the business intelligence tools market that includes end-user query, reporting and analysis software as well as advanced analytics.

"Today's report illustrates SAS' leadership in data integration," says Ken Hausman, Data Integration Product Marketing Manager for SAS. "SAS Data Integration, which includes data quality technologies provided by DataFlux, provides a complete range of data integration capabilities that go beyond the data warehouse access and data warehouse generation software covered by this report. For the first time, this wide breadth of technologies provides enterprises with an opportunity to consolidate vendors and standardize on a single platform for all their data integration needs, significantly reducing costs and increasing reusability across ongoing data integration initiatives."

The capabilities available in SAS Data Integration provide organizations with the flexibility, reliability and agility to respond quickly to new data integration requirements. Data warehousing is just one component of the complete range of SAS data integration technologies — including:

- Multi-vendor, multi-platform connectivity and metadata.
- Data cleansing and enrichment.
- Extraction, transformation and loading (ETL).
- Migration and synchronization.
- Data federation.
- Master data management.

## Can IT Save Our Hospitals?

**Analyst report reveals that business intelligence helped University Clinic of Aachen generate \$6.5 million in ROI.**

European hospitals are working with political and administrative authorities to find ways to contain costs in the face of increasing economic and financial difficulties. At the same time, doctors and nurses are suffering from working conditions in Europe that are contributing to the shortage of key healthcare professionals. This past summer, about 70,000 doctors in Germany engaged in a 13-week strike to improve their working conditions and salaries. The strike cost hospitals up to \$640,000 per day, jeopardizing many hospitals' existence.

"Saving hospital costs to invest in doctors and nurses seems to be a logical consequence for hospital directors," says Willi Janiesch, Head of the Pharma and Health Division at SAS' international headquarters in Heidelberg, Germany. "German hospitals could save up to \$512 million annually if they were more open to the use of strategic, analytical information technology for controlling and steering."

German University Hospital Aachen (UKA), for example, will be able to create a net value of \$6.5 million within five years after implementing a BI platform. This finding from leading market researcher International Data Corp. (IDC) was recently published in a study sponsored by SAS. The UKA, one of Germany's largest hospitals with 5,700 employees, treats nearly 180,000 patients annually. The hospital was able to show a five-year return on investment of roughly 570 percent, breaking even on its initial investment after only nine months.

After implementing a business intelligence solution from SAS, the university hospital was able to:

- Optimize patient care and hospital facility use.
- Improve bill collection and increase revenue from the insurance provider.
- Reduce internal staff time and costs of external services.
- Create key performance indicators for employee satisfaction, patient satisfaction and IT support.

The IDC study "SAS BI Enables Optimized Controlling and Steering at UKA" is available [free](http://www.sas.com/news/analysts/idc_bi_0906.pdf) at [www.sas.com/news/analysts/idc\\_bi\\_0906.pdf](http://www.sas.com/news/analysts/idc_bi_0906.pdf).

## Shanghai GM Achieves Early Returns on SAS® Warranty Solution

Shanghai General Motors Company (Shanghai GM) has taken a big step forward by improving the efficiency of its warranty analysis cycle. After implementing SAS Warranty Analysis, Shanghai GM, a US\$1.5 billion joint venture between General Motors and Shanghai Automotive Industry Corp. (SAIC) can determine the causes of warranty issues and solve them much more quickly.

Equipped with the latest industry best practices and technology for warranty analysis from SAS, Shanghai GM is living up to its reputation as the leader in China for customer service and quality and is setting the pace on the market. "We outperform other industry giants," says Mr. Nanxiang Gao, Warranty Business Representative and Field Performance Engineer within the Quality Department.

Shanghai GM is the largest passenger car manufacturer in China, with a yearly production of 252,000 vehicles in 2004. The company also produces engines and transmissions for both the domestic and overseas markets. Holding around 10 percent of the market in 2004, the company ranks third in China in terms of market share.

The situation has become much more competitive in recent years as more and more global car manufacturers have entered the Chinese market – one of the world's fastest growing automotive markets with an annual growth rate of 16 percent. As a result, automotive companies had to refocus on profitability, cost savings and quality issues.

### After-sales service and quality

Shanghai GM has a strong commitment to after-sales service and quality and is famous for its customer service, particularly the "Buick Care" after-sales brand. While production volumes have tripled over the past three years, Shanghai GM needed a strong system to improve the efficiency of its warranty analysis cycle to maintain high customer satisfaction and quality reputation as well as to manage costs. Reducing the time required to find the cause of a warranty problem had become the biggest challenge facing Shanghai GM's After-Sales Service and Quality. Faster problem identification ensures that the issue can be fixed sooner and warranty costs can be avoided.

The SAS Warranty Analysis solution has allowed Shanghai GM to reduce the warranty analysis cycle time by 70 percent within the first six months and to substantially cut warranty costs – the main objectives for the system, according to Mr. Gao.

These significant improvements have allowed the company to get total return on all software and hardware investments within only half a year. After just six months, Shanghai GM has registered 9 million Chinese Yuan warranty costs savings due to shortened cycle time and an additional 9 million Yuan from the early identification of 13 emerging issues.

The Quality Department has been championing the warranty analysis project. With around 80 field performance engineers, the department is responsible for the whole issue-solving process and for launching new projects in the area of field performance. The department serves the main divisions within the organization, including manufacturing, engineering and Power-train, an independent group within Shanghai GM that manufactures engine transmissions.

After a long and global investigation period, Shanghai GM found that SAS was the only provider of a packaged solution for warranty analysis that also offered industry best practices. After a

thorough evaluation workshop, the warranty team found out that the SAS Warranty Analysis solution fulfilled 80 percent of the team's requirements and therefore needed little customization.

### **Shortened cycle time**

"Using the SAS solution, the average total cycle time was shortened from 174 days to 52 days within the first six months of utilization," explains Mr. Gao. This corresponds to a 70 percent turnover time reduction.

Regarding the early identification, Mr. Gao admits that the software's Emerging Issue component allowed the company to identify 13 issues in 2005 which could not have been detected without the system. Shanghai GM also saved on average three months in finding these issues compared to the time needed before implementing SAS.

### **The power of BI**

Shanghai GM's engineers are especially pleased with the analytical power of the SAS software. The statistics driver analysis allows engineers to determine whether a warranty claim variation is normal or exceptional, meaning one that requires investigation. The root-cause analysis has become much easier and quicker and provides statistics-based clues that enable engineers to quickly understand what happened and what variables had an influence on the warranty issue.

"Before SWA, we depended on monthly reports to perform root-cause analysis. With SAS Warranty Analysis, we use real-time analysis in any dimension that we want from the data that is updated weekly. This improves our process significantly," comments a user of the SAS solution from the Quality Department.

Around 30 engineers within the Quality Department are using the SAS system every day. Some of the plants also are using the system already. Within a portal-like application, engineers can get early warning information and perform analyses, such as comparisons, trend exposures and control charts. They also can generate various advanced reports, including statistics driver analyses and forecasting. Historic data is also directly available. Using SAS Enterprise Guide, power users have several ways to directly access the warranty data to create customized report and do further analysis. As a result, they no longer have to depend on IT to provide the data and create report for them.

Mr. Zhong Zhong, Senior System Analyst and IT Project Manager, comments: "Shanghai GM understands the power of BI."

### **Enterprisewide solution**

Shanghai GM plans to deploy the system to engineering, purchasing and manufacturing in a first phase. Power-train is also considering implementing the system. Mr. Gao expects that by expanding the usage of SAS, the company will find more ways of solving problems. The Quality Department itself organises bimonthly sessions during which the users can share knowledge and experience on the latest findings made using the advanced options of the SAS solution. "We are making constant progress and after six months of using SAS, we are still discovering new ways of improving our warranty analysis process," says Mr. Gao.

The Finance and the Marketing departments are also directly seeing the benefits of the warranty analysis solution. Accurate forecasts are now available, making the warranty accruals planning much more effective. "This also has an impact on the efficiency of our after-sales campaigns

because now we know exactly how much money is available for after-sales," comments Mr. Zhong.

### **Industry index performance**

Standard reports generated by the system offer senior executives an overview of the warranty analysis. Industry KPIs like cost-per-vehicle (CPV) and incidents-per-thousand-vehicles are now calculated and monitored with great accuracy. Between January and May 2005, the CPV index for two-month-old vehicles was reduced by 30 percent, a decrease that Mr. Gao says is derived directly from the improvements made in problem solving.

Today Shanghai GM is proud of its position as the industry leader in terms of warranty best practices. The satisfaction is great: not only has the project been nominated for the Technology Innovation Award by the SAIC group (an award that will be handed out in early 2006), but the reputation is also reaching beyond China. General Motors Global Warranty is extremely interested in the success of their Chinese colleagues and is closely looking at the new achievements. "Warranty Analysis is our contribution back to global GM," declares Mr. Zhong.

## Events:

### [Webcast: Retail Revenue Optimization](#)

Tune in on **Oct. 4 at 11 a.m. ET** to learn how technology can help retailers offer the right product to the right customer at the right price.

### [M2006 Data Mining Technology Conference](#)

Join your colleagues and the most sought-after experts in data mining at M2006, **Oct. 23-24** in Las Vegas. Register online now!

### [BetterManagement LIVE 2006](#)

The world's leading business conference for exploring management perspectives will take place **Oct. 25-26 in Las Vegas.**