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Dear Readers,

In this issue, you'll learn three new ways of quickly turning data into useful information that affects the bottom line:

1. You can now analyze data within your database engines with [SAS® In-Database processing](#).
2. You can combine your data with [spatial intelligence](#) and learn where to open your next store or distribute resources.
3. You can even view your data in new and exciting ways. Go [beyond the bar chart](#) with powerful interactive data visualization technology that puts your data into motion, allowing trends to appear and stories to unfold.

Happy hunting!

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

Anne-Lindsay Beall
Editor, *SAS Business Report*

SAS Drives Business Intelligence Through Databases

SAS unveils plans to provide deeper integration of SAS analytics and solutions within database engines

SAS plans to directly integrate [SAS analytics](#), data integration capabilities and solutions into leading relational database management systems (RDBMS). This initiative will deliver improved accuracy, reduced data movement and more streamlined analytic processes to businesses with enterprise data warehouses to help speed the delivery of business intelligence throughout all levels of the organization. Decision makers with faster access to analytical results will gain more insights into their businesses and make more agile and accurate decisions that comply with governance requirements.

“By leveraging the processing power of databases and running analytics where the data resides, SAS is giving businesses another way to be more efficient and effective by helping them balance and fully utilize their technology resources,” said Henry Morris, Senior Vice President, Worldwide Software and Services Research, IDC. “Accelerating the development and execution of analytics within a relational database will give customers a flexible, powerful means for implementing predictive analytics and information analysis in one location.”

Businesses today are challenged by the need to harness the value of increasing amounts of data to make fast and accurate decisions. SAS will address these challenges by enabling appropriate analytics, data integration and business intelligence functionality to execute within database engines and integrating these applications seamlessly with business intelligence services and analytic solutions across the enterprise. The goal of this initiative is to provide customers with increased flexibility and a cost-effective approach to further leverage their enterprises' data warehousing investments with [SAS In-Database Processing](#), which will make it easier for them to focus on business opportunities that will help them succeed.

“As databases mature to become data appliances for distributed computations, the time has come to extend the power of SAS Analytics and data transformations inside the database engine,” said Keith Collins, Senior Vice President and Chief Technology Officer, SAS. “As more customers leverage data and analytics as corporate assets, they are asking for our help in managing the analytical life cycle from discovery to execution. Blending the best of SAS with the core strengths of databases makes businesses more efficient and responsive to changing market environments.”

For example, in efforts to address compliance issues, banks are responsible for identifying suspicious activity, maintaining financial integrity and reducing operating costs, as well as for detecting and reporting criminal financial activities anywhere in the organization. Now, with the predictive models of SAS integrated within a relational database, banks can identify and address suspect patterns or anomalies quickly, while also speeding up the process of refining detection measures and logic to more accurately report exceptions throughout the enterprise. In addition, SAS® In-Database Processing will give retail companies another way to analyze their data to understand and anticipate customer behavior, meet customer needs, build more profitable customer relationships and gain a holistic view of a customer's lifetime value.

“Firms that compete on analytics realize that collecting and storing large amounts of information isn't enough. By building competitive strategies around data driven insights, they can generate impressive business results,” commented Professor Tom Davenport, co-author of *Competing on Analytics*. “Integrating analytics at the point of transaction and data transformation gives businesses with enterprise data warehouses quicker access to the predictive results they need to compete effectively in the market.”

This global initiative will occur in a phased rollout involving technical integration milestones with leading RDBMS platforms. More information can be found here:
<http://www.sas.com/technologies/architecture/in-databaseprocessing/index.html>.

Predicting the Where with Spatial Intelligence

Learn where to open a new store, where to distribute supplies, where to add resources – and more

Often where an event happens can be just as important if not more important than the event itself. In fact, an event's location or geographic relationship to other events can significantly affect the results or implications of many performance indicators.

For example, the consequences of an underperforming asset in an urban location may be very different from one in a rural location when it comes to the effects on customers, employees and financial performance. Moreover, outcome-based measures such as the revenue generated by a retail store are strongly influenced by location because location typically dictates trade area demographics, proximity to competition, transportation facilities, associated customer travel times, and other cultural and physical landscape feature relationships.

Location matters

Location is very much an integral part of knowledge management. Issues, events, problems and opportunities all occur in places (the where) and occupy space (the extent). Knowledge of events, business transactions or government policies and the subsequent quantification of performance or impact is of little value without knowing where things occur. Likewise, being able to predict where things will occur provides tremendous strategic value in achieving desired future outcomes.

So why does location matter? Consider the following:

- Organizations do business somewhere.
- Their employees and customers come from somewhere.
- Inputs must be received from and outputs (products and services) must be delivered to somewhere.
- Economic and financial performance, public safety and domestic security, and environmental and social conditions all are inherently geographic whether localized, regional or global.
- Issues and activities that occur in a particular place rarely occur in a vacuum but affect surrounding people, economic and natural ecosystems, institutions, and communities.

For more than 25 years, geographic information system (GIS) technology has provided automated methods for collecting, organizing, analyzing and visualizing the locational aspects of business information. More recently, the integration of GIS from the Environmental Systems Research Institute (ESRI) with SAS business and predictive intelligence technology has provided the opportunity to implement true spatial intelligence systems.

What is spatial intelligence?

At the highest level, spatial intelligence adds a geographic or locational dimension to business and predictive intelligence systems. It provides both the means for map-based visualization of business information as well as the application of spatial analytics to further discover, analyze and understand the locational relationships within and between data features.

Spatial analytics and geographics is the science of location, adjacency and direction between physical and cultural features on the landscape. There are many examples of how spatial analytics can be applied. These include:

Proximity analysis – How many customers are within a specified distance of a retail store?

Network analysis – What is the shortest route? What is the quickest route, taking into account impediments such as traffic lights and patterns?

Buffer analysis – Show me all customers within 200 yards of Main Street between the 1000 and 5000 blocks.

Cluster analysis – How many and where in a given area are our customers who also use competitive products and have an income above \$150,000?

By coupling GIS with SAS technology, these questions can become predictive. Where will our competition site a new facility? How much local market share might we lose? What would be the effect on net revenue and market share if we site a new facility directly across the street? Two blocks down? How much can we expect to spend on fuel based on route optimization? How will customers be affected by that optimization?

Spatial intelligence and the SAS® Enterprise Intelligence Platform

The SAS Enterprise Intelligence Platform provides a solid foundation for achieving spatial intelligence through the merger and integration of its business and predictive intelligence capabilities with GIS.

SAS and GIS are indeed complementary technologies. Both are integrative. Both source, organize and use key business data in support of decision making. Both are analytical. Both visually depict complex ideas and results. Especially when integrated, SAS and GIS can be very strategic, transforming transactional business data into powerful intelligence that optimizes decisions in context. That is, not only knowing whether, but where to act or not act. As such, SAS and GIS can help refine policies as well as strategy development and execution by focusing effort and resources in the most compelling locations.

The following are applied examples of spatial intelligence through integrated use of the SAS Enterprise Intelligence Platform and GIS:

Data integration in support of domestic security preparedness and response. A state department of agriculture and consumer services uses spatial analytics as part of data integration efforts. Proximity analysis was embedded as a business rule within a SAS ETL process to determine whether inconsistent names of facilities contained in different regulatory systems were in fact the same or different organizations. This helps the department understand who and where their employees and customers are in order to prepare for and recover from man-made and natural disasters.

Organizing and storing data to manage the environment. A large urban city and growing county collaborated to build an environmental data management system (EDMS). This system integrates data from multiple regulatory and management systems to manage environmental assets in the field, such as streams, wells and other hydrological features. Using SAS and ESRI GIS technology, the EDMS reports on an array of performance and environmental outcomes based on the location of assets or groups of assets in a particular area. This system gives managers insight into the performance of specific assets and personnel and gives guidance on problem areas or problem assets.

Spatial analytics to identify optimal store locations. A FORTUNE 50® retailer uses spatial and traditional analytics to support market planning and analysis and site location. This system automates the capture of numerous internal and external data streams and encapsulates the company's analytical models to determine the optimal location of stores. This system takes a variety of factors into consideration, including customer location and preferences and the presence and effect of competitors. It also provides predictions of revenue and other success metrics based on location alternatives. In addition to improving results, this system has reduced the decision-making process time frame, including various due diligence meetings, from more than six weeks to less than two. Another financial institution client has used spatial intelligence to site a branch

facility. Within 30 days of opening the new branch, it handled more transactions than any of its other locations, including its corporate headquarters.

Advanced visualization to provide intelligence in context. Each of these spatial intelligence clients use map-based visualization to interpret circumstances and understand cause and effect based on geography. “Temperature” and “pin” maps can illustrate the location of and outcomes from analytical processes. Relationships and context not revealed by analytics can be seen in the map context.

As you can see, there are many, many uses for spatial intelligence. These include customer analysis, market analysis, site selection, risk analysis, territory management, facility management, property management, fixed and mobile asset management, supply chain management, logistics, customer relationship management and house holding, fraud detection, incident management, environmental management, and business continuity.

Spatial intelligence can enhance business and predictive intelligence by allowing issues to be viewed and analyzed in the context of a community or broader communities of interests. Behind the scenes, spatial intelligence can be used to source and improve data to serve strategic, not transactional, objectives.

Beyond the Bar Chart

Interactive data visualization powers exploration

Analysts and executives alike recognize the stumbling blocks of contemporary analytics: endless columns of data, inflexible charts, disparate reports and delayed information that impede timely decision making. Gathering the intelligence needed can take weeks and sometimes doesn't even produce the results originally sought – or produces them too late for decision makers to act. This is life before data visualization.

Fortunately, several forces are propelling organizations out of the old life and into a new era of analytics. Not least among these forces is the desire for a dynamic way to explore information.

“If you look at what we're exposed to as consumers of data in the '5-to-9' off-hours versus the '9-to-5' work hours, there is great disparity,” says Gaurav Verma, Product Marketing Manager at SAS. “You go home at 5 p.m., and all evening you're interacting with amazing tools on the Internet. You see the magic of [Ajax](#) (an online development that increases Web usability by speeding the download process). [Google Earth](#) has satellite views, panning and zoom. You can do all kinds of things with these programs, and then you come to work at 9 a.m., and you say 'I have a bar graph with some rows and columns. And I can't do anything with it. It just sits there.’” That no longer has to be the case.

Interactivity at its best

Data visualization moves beyond the confines of that bar graph, painting a vibrant portrait of data that today's users crave. With interactive graphs, users can examine information from multiple perspectives and in various forms while incorporating as many variables as they want. In the past, an analyst would have had to build and run multiple queries against large data sets to gain insight; now visualization technology draws an immediate picture of trends and relationships by allowing users to run visual queries. By expediting the long calculations that analytics otherwise requires, Verma says, such features ease data exploration.

Just as they streamline the discovery process, these features produce sleek presentation formats to engage information consumers – even in meetings, where graphs traditionally are flat and inflexible.

User-friendly graphics and interactivity enable users who are not analysts to use data visualization, making the technology perfect for the business setting as well as statistical research. In particular, executives in a corporate organization can use the technology for faster and better decision making.

“Traditionally, we go through a process where an information producer takes information, analyzes and regroups it such that an information consumer can easily digest it,” Verma explains. “Visualization removes the complexity of that process and organizes data so that average information users can get visual insights on their own – much faster than if they had to wait for a data report to appear.”

A powerful combination

Data visualization is especially effective in business intelligence. To that end, those seeking business insights might use [SAS Visual BI](#), which combines SAS and [JMP®](#) technologies, to create powerful visual analytics. Line-of-business managers or executives can bypass data table navigation and quickly find the information they need to make better, more immediate decisions. What's remarkable about SAS Visual BI is its flexibility: The tool can aggregate and display data from any corporate level in any industry, which means it is useful in task-specific analyses.

“It all depends on your business function,” says Verma’s colleague Tammi Kay George, also a Product Marketing Manager at SAS. “Your dashboard will display data that is most relevant to your job.”

George warns that there is much more to data visualization than nifty graphics. Other technologies have boasted of excellent graphics yet have failed to deliver informative results along with the pictures. In a recent article titled “Pervasive Hurdles to Effective Dashboard Design,” Stephen Few, Principal of the consultancy Perceptual Edge, says, “Most vendors rarely take the time to design the visual appearance and functionality of display media in a way that produces the clearest, richest, and most efficient communication possible.”

In fact, overemphasis on aesthetics has often left users unsatisfied, George says. “Analysts were saying, ‘Don’t just toss me a bunch of pretty 3-D graphs. Never mind how great the format is; the data has to be meaningful, and it has to present itself in a way that enables me to act.’”

Unlike anything else on the market, SAS Visual BI provides robust analytics as well as “whiz-bang cool” graphics, says George. Users can examine the minutiae of data or survey a broader picture, depending on their needs. If a problem occurs in a single variable, the technology allows an analyst to focus on that discrepancy, unearth its root cause and quickly convey that information to a decision maker in the organization who can address the problem.

Enabling swift, efficient action

The dashboards included in SAS Visual BI support precise troubleshooting by showing a field of monitored metrics, color-coded to reflect their level of urgency. According to Few, that’s exactly the kind of feature that a dashboard needs to be useful: “Dashboard display media must present measures of what’s going on, usually in the context of some comparison to express performance, and do so in a way that can be perceived and understood at a glance, even when surrounded by a dense array of information.”

Verma describes the dashboard feature of SAS Visual BI in just that way: “When I turn on my desktop in the morning, my dashboard shows me all the areas that I’m focusing on. Some are red, some amber and green. Green I don’t need to worry about. Amber I need to keep an eye on. Red I need to focus on right now. And I can immediately start acting from that.”

Enabling a swift response to problems is just one part of the overall speed of visualization technology, a trait that makes it perfect for environments in which fast decisions are crucial to success. The analytics are simple enough for everyone to understand. But the analytics are also powerful and detailed enough for analysts to use in exploring and discovering trends in data, and also flexible enough for use in a variety of situations.

In addition, the graphics help data consumers to comprehend trends better and enhance a report’s visual appeal. In fact, the graphics are what ultimately elevate data visualization above traditional analytics software because they give everyone access to information that was formerly shrouded in a confusing haze of numbers.

“Some people are going to be able to glean insight from tables of numbers – your typical, statistically based interfaces,” says George. “But most people need to see it to believe it – and that’s what interactive data visualization can do for you.”

An Infrastructure for Innovation

SAS BI unifies reporting at ICICI Bank

How do you consolidate a business intelligence framework across a network of about 950 branches and 3,300 ATMs in 17 countries? ICICI Bank did it by replacing its existing disparate reporting systems and implementing a single enterprisewide framework with SAS. The SAS Enterprise Intelligence Platform caters to ICICI Bank's need for flexibility, scalability and its goal to derive a "single view of the customer."

ICICI Bank is India's second-largest bank, with total assets of Rs.3,446.58 billion (US\$79 billion) as of March 31, 2007, and profit after tax of Rs.31.10 billion for fiscal 2007. ICICI Bank is the most valuable bank in India in terms of market capitalization and is ranked third in free float market capitalization among all the companies listed on the Indian stock exchanges. ICICI Bank offers a wide range of banking products and financial services to corporate and retail customers, including investment banking, life and non-life insurance, venture capital and asset management.

While ICICI Bank has taken rapid strides in developing new businesses in recent years, the bank believes its biggest challenge will be to continue innovating to improve market shares and to maintain its competitive edge. According to K.V. Kamath, Managing Director and CEO of ICICI Bank, "We will continue to benchmark with global best practices to ensure optimum utilization of our resources and the finest exposure to our work force. My vision is to develop ICICI Bank into an organization that is empowered by bright and talented individuals, working in teams and riding on the backbone of world-class technology."

Enterprise intelligence

With the philosophy of driving enterprise intelligence across ICICI Bank, the bank needed an enterprisewide reporting system to empower synergistic reporting between applications that support the business and, at the same time, offer flexibility to support the reporting needs of various business units.

With business transactions growing exponentially, one of the key parameters for the evaluation of a solution was the scalability to support the growing data in ICICI Bank. In fact, one of the major business concerns was supporting the business if the growth in the number of users exceeded the planned number. The key departments involved in evaluating the solution were the technology management group and the retail and corporate technology teams.

Prior to using SAS, the existing environment included multiple reporting systems that were cumbersome to maintain, and various departments were still using disparate reporting tools. Information dissemination across the enterprise was conducted manually by the IT team. In addition, bandwidth issues, security concerns with enterprise data lying on desktops, and exponentially increasing data established a need for a user-friendly solution that could integrate all data sources across the organization.

The perfect fit

The SAS Enterprise Intelligence Platform was an ideal fit in this business scenario, as it empowers the bank with the key cornerstones of SAS[®]9: manageability, interoperability, scalability and usability. Specifically, ICICI's IT team acknowledged that these advantages would greatly benefit the bank:

- Usability: The SAS Web-based solution would enable ICICI to provide information access to all users across the bank.
- Scalability: SAS can scale upward and outward to address a great number of queries from many users.
- Interoperability: SAS can talk to all of the bank's existing data sources, natively.
- Manageability: Security concerns can be addressed with the SAS Management Console that can be deployed as one point of control in setting up permissions.

BI strategy

ICICI bank was also interested in a data integration solution for its data warehouses and data marts. This helped broaden the scope of the SAS solution with the introduction of SAS Data Integration for the creation of marts.

To address issues related to migration and scalability, SAS suggested a proof of concept and involved both the business and the IT users during that important phase. The team of business users and IT managers was impressed that SAS took one third the time to build a reporting cube compared to Cognos. Cube exploitation clocked in with subsecond response times, and the entire migration of the cube took only four hours, including understanding the transformations and getting the raw data in place.

The successful proof of concept was the key turning point for ICICI's decision to purchase SAS. The vision of consolidating the BI environment and setting up an enterprisewide business intelligence platform had been created.

Mr. Pravir Vohra, ICICI Group Chief technology officer, rightly establishes the strategic outlook of ICICI Bank. According to Vohra, "Adoption of SAS in ICICI Bank is in line with our strategy to consolidate our business intelligence framework and establish an enterprisewide business intelligence platform. With the SAS Data Integration Server it will now be possible for us to integrate our data sources across the enterprise. SAS Enterprise BI Server will empower our information users to have access to the requisite reports through an enterprisewide reporting system. Our partnership with SAS will go a long way in streamlining our BI strategy."

7 Ways to Fight Back Against Fraud

Insurance companies use a variety of tactics to detect and deflect fraudulent claims

Although it's impossible to calculate the exact cost of insurance fraud (estimates range from US\$20 billion to upward of US\$60 billion in North America alone), there is no doubt that fraud is a huge problem and an ongoing challenge. But it is a crime that technology can help curtail.

If criminal behavior remained static, identifying patterns and flushing out fraudulent claims would be a simple process. Individuals exploiting the system, however, are typically savvy enough to make identification of nonlegitimate claims quite difficult. As a result, a variety of techniques have been developed to help reduce the number of false claims that insurance providers cover.

Method No. 1: Voice stress analysis

Fraud begins with a lie. Criminals tend to be proficient liars, so a "story" may sound like a fair and reasonable claim. Though words can be controlled and may ring true, certain vocal patterns indicate when a claimant is being dishonest. Voice stress analysis can measure these pattern variations.

Voice stress analysis involves using electronic recording devices to evaluate levels of stress during verbal interviews. As a claimant explains a situation, a recorder compares vocal patterns to a predefined stress threshold.

An advantage of this technology is that stress levels are neutral in terms of gender and ethnicity. The technology also factors out unfamiliar accents, which may complicate an individual evaluation. The test simply measures stress levels, thus reducing human bias.

On the other hand, the technology requires training to use and cannot prove that the claimant is lying. Voice stress analysis is a relatively new process, and detailed results are not publicly available. Use of voice stress analysis may also have a negative impact on customer retention. Announcing that a company uses it may reduce claim padding, but it may offend honest claimants at the same time.

Method No. 2: Red-flagging

At the opposite end of the technology spectrum is the more common use of "red flags." In this system, adjusters look for specific patterns of activity and flag claims that look suspicious. More experienced adjusters then investigate these red-flagged claims in depth.

The advantage of the red-flag approach is its simplicity. Practitioners and regulators can easily match a list of behaviors to accounts, and minimal investment or training is needed to implement a basic rule-based red-flag program.

Unfortunately, a nonautomated red-flag system has many disadvantages. For one, it puts the burden of detection on overworked adjusters. For another, diligent adjusters often waste time investigating the high number of red-flag claims that turn out to be false positives. Furthermore, flagging rules are based on past fraud experiences, which limits the ability of this approach to detect new fraud techniques.

Method No. 3: Predictive modeling

In recent years, many insurers have turned to predictive modeling processes to help them detect fraudulent claims. This has reduced the need for tedious hands-on account management. Relying on statistics, sage analysts use data mining tools and build programs that produce fraud propensity scores. Adjusters simply input data, and claims are automatically scored and available for review.

Predictive models tend to be more accurate than other methods. Information can be collected and cross-referenced from a number of sources. This method provides a better balance of data than the more labor-intensive red-flag system.

But the initial setup with predictive models is critical. Models are only as reliable as the data on which they are constructed. If fraud classifications are not accurate, then results are of little value. Even with good information, accounts may show false positive results for a variety of reasons.

Additionally, model performance deteriorates with age. As criminals adopt new approaches, analysts must update programs to reflect new patterns. Yet in spite of some flaws, predictive modeling shows great promise for fraud detection.

Method No. 4: Database searching

Database searching, another approach, would be better classified as an investigative tool. Here, companies subscribe to services offered by various vendors. Subscribers submit skeletal data of adjudicated claims and then have access to data submitted by other members of the service.

The huge bank of collective data powered by such search interfaces enables adjusters to view massive amounts of information from numerous sources. Finding claims associated with search criteria, however, does not necessarily result in fraud detection. Adjusters must be skilled at reviewing and interpreting data to effectively use these services.

Unlike the first four methods, the remaining three fraud detection techniques involve a retrospective analysis of adjudicated claims. The first four, if employed correctly, can prevent payments. The last three techniques are useful for identifying the activities of fraud rings, internal fraud and leakage.

Method No. 5: Exception reporting

Exception reporting is the most basic approach and the easiest to implement. Key performance indicators associated with tasks are baselined and thresholds set. When an event exceeds the threshold for a particular measure, the system reports the event.

Once in place, the system functions automatically. It monitors adjuster activities and helps identify and correct problems. This is a useful tool for evaluating individual performance and identifying employee training opportunities.

Determining what to measure, what time period to use and what threshold to set can be difficult. Still, exception reporting is an effective tool for internal management.

Method No. 6: OLAP reporting

Another antifraud tool is the combination of ad hoc query and online analytical processing (OLAP) – facilitated by the creation of databases summarized across many different dimensions. OLAP reporting enables analysts to search through huge volumes of adjudicated claims, make comparisons, identify exceptions and find unusual situations in a dynamic environment.

OLAP capabilities are available from many different vendors. An experienced analyst can use the data to quickly generate reports that identify potential problems and direct future investigations more effectively.

Because OLAP is interactive, it requires intervention from an analyst who must have a strong understanding of the data. The creation of OLAP databases is not a trivial task. The database architect must understand the claims process and must identify the required dimensions.

Method No. 7: Link analysis

The final fraud detection tool is link analysis, which is effective in identifying organized fraud activities. Link analysis is the process of modeling the relationships between entities in claims data to uncover abnormal patterns. Entities may be defined as locations, service providers, telephone numbers and Vehicle Identification Numbers – to name just a few.

Tools can be tuned to display link frequencies that exceed a programmed threshold. Large volumes of seemingly unrelated claims can be checked, and then patterns and problems may be identified. Link analysis is relatively automated, but a skilled analyst is required to put all the pieces of the puzzle together.

Insurers have been able to identify the presence of fraud rings using link analysis. Because the focus is on retrospection, this process does not necessarily prevent fraud. It does, however, allow the industry an opportunity to detect organized criminal activities and to take appropriate action.

Companies can use these seven methods individually or in combination to help them detect and prevent criminal claim activities. Employing even some of these tactics may deter would-be fraudsters from making false or padded claims.

Fraud cuts profits, and lax fraud identification practices put a company at a competitive disadvantage. Although it does take commitment and an investment of resources and time to address fraud issues, the stakes are too high to ignore the problem.

This article originally appeared in *National Underwriter Property & Casualty* magazine.

Available online only:

What's Your Performance Management IQ?

Test what you've learned in our five-part series of articles that described how organizations manage performance:

http://www.sas.com/news/sascom/2007q4/feature_pmsurvey.html

New SAS Customer Support Site Unveiled

The newly redesigned SAS customer Web site, support.sas.com was launched on Oct. 22. . . Learn more about the four main areas of the site: **Knowledge Base, Support, Learning Center** and **Community** in this blog post from SAS support site expert, Renee Harper:

<http://blogs.sas.com/supportnews/index.php?/archives/9-Site-Navigation-The-big-four.html>

Events:

Balanced Scorecard North American Summit 2007

Nov. 6-8, San Francisco, CA

<http://bscnas.ontrackevents.com/Contact/Contact.cfm>

Business Performance Management Summit

Nov. 12-13, Old Greenwich, CT

<http://www.bpmmag.net/summit/>

CMG '07 International Conference

Dec. 4-6, San Diego, CA

<http://www.cmg.org/conference/cmg2007/>