



SAS® Business Report

MARCH 25, 2008

Dear Readers,

I'm writing this from [SAS Global Forum 2008](#) in San Antonio, and it's been a wild ride! At Opening Session, SAS CEO Jim Goodnight announced breaking news: [SAS has acquired Teragram](#), a market leader in multilingual language processing technologies.

Why is this important? Because organizations will now be able to perform fast, efficient [text searches](#) and organize information in 30 languages.

In other news, the [in-database functionality](#) allowed by [SAS' partnership with Teradata](#) has shown tremendous early results – allowing one customer to complete a hurricane exposure analysis report in 90 minutes when it used to take two weeks.

Read on for all this and more...

[Anne-Lindsay Beall](#)
Editor

SAS News

SAS acquires Teragram to strengthen industry-leading text mining, analytics

SAS adds natural language processing, automatic categorization, and natural language enterprise search technology to analytical portfolio

SAS has announced the acquisition of privately held Teragram, the leader in natural language processing (NLP) and advanced linguistic [technology](#). The acquisition will enhance SAS' own robust [text mining](#) and analytical BI offerings, and extend them to enterprise and mobile search.

More than a decade ago, SAS was among the first companies to recognize the importance of text mining, the analysis of text and other unstructured data such as Web pages, documents, email, images and other information not stored in a structured database. Today, SAS leads this important and growing space.

"The addition of Teragram's domain expertise and NLP technology will change the landscape of the BI and analytics markets," said SAS CEO Jim Goodnight. "Teragram's technologies augment, strengthen and extend SAS' ability to combine structured and unstructured data -- not only in our text mining solution but embedded across the entire SAS Enterprise Intelligence Platform -- to drive better answers faster."

[Teragram](#), a 40-person firm headquartered in Cambridge, Mass., will be run as a SAS company. Terms of the acquisition deal were not disclosed. Teragram's NLP technology is well-established, with a customer base including CNN, Forbes.com, NYTimes Digital, Sony, WashingtonPost.com, Wolters Kluwer, the World Bank and Yahoo!

"As the data explosion continues, companies need an intelligent way to make sense of it all, whether data is in structured databases or in the huge variety of unstructured sources," said Yves Schabes, President of Teragram. "Teragram and its technology fit perfectly into SAS' analytics and text mining efforts, as SAS continues to innovate in this rapidly growing market. We're pleased to join a company that delivers the software businesses need to blend structured and unstructured data and reach better, timelier and more accurate decisions.

Natural language processing

Teragram's natural language processing (NLP) technologies help turn text -- in many languages and from many sources -- into useable information. NLP enables richer data processing at the level of words, linguistic relations and word meanings. Teragram has developed and maintains large annotated dictionaries containing several hundred million words in more than 30 languages.

Automatic categorization

Teragram's advanced categorization technologies provide instant, advanced classification of documents according to custom criteria, applied throughout the organization. This enables faster and more accurate access to documents organized by specific topics that match the interest of a given user, regardless of the original document's location.

Natural language enterprise search

For enterprise search, Teragram's NLP technologies scan structured corporate databases and unstructured sources including text-based reports and Web pages to provide comprehensive answers from these multiple information sources.

“With today’s multinational companies and distributed workforces, as well as tremendous amounts of data in disparate systems and formats, it’s more important than ever to get quick and accurate answers to key business questions,” said Schabes. “Enterprise search is a competitive weapon for tapping an organization’s existing data resources. Combining SAS’ business intelligence, data integration and advanced analytics with Teragram’s NLP technologies will deliver answers to search queries in seconds.”

Teragram’s sophisticated search capabilities deliver an easy-to-use environment for BI, extending the availability and use of BI throughout organizations. The combination of SAS and Teragram technologies provides indexing driven not just by a report’s header, but by its actual content and the metadata associated with it.

Mobile search

Teragram also brings SAS the next generation of mobile search, helping individuals scan information remotely and get answers faster. Using Teragram’s mobile search technology, individuals can store and retrieve information, connect to outside applications such as BI systems, and search databases from their BlackBerry, smart phone or other mobile device.

An explosion in unstructured data

Business management expert Bill Jensen first decried the downsides of today’s information explosion back in 2001, in his book "[Simplicity](#)." According to his research, echoed by others, the most conservative estimates currently show that business information is doubling every eighteen months. This data flood has only grown more pronounced in recent years, and much of this data lies outside traditional, “structured” databases. According to estimates, [unstructured data](#) comprises up to 70% of all business data. This unstructured data resides in customer comments and service notes, e-mail and chat threads, documents and surveys, blogs and RSS feeds, warranty claims, resumes, voicemail and phone logs, among other sources.

If businesses fail to include this unstructured data in their analyses – of customers, market opportunities, internal operations, supply chains, etc. – they are only seeing part of the complete picture, and can make bad decisions as a result. Powerful analytics like SAS’ can help organizations weave structured and unstructured data to uncover hidden patterns and trends, and then use this insight to make better decisions, solve problems and take advantage of opportunities.

A pioneer in text mining

SAS has offered text mining capabilities within its software for more than a decade, and launched a specific text-mining product, [SAS Text Miner](#), in 2002.

Today, SAS Text Miner is included in several industry-specific solutions, including [SAS Warranty Analysis](#). Manufacturers such as Sub-Zero and Shanghai General Motors use this solution to bring together and analyze warranty claims and service data, much of it unstructured. They can discover potential problems early enough to take quick action, leading to improved product quality and enhanced customer satisfaction and loyalty.

Banks use text analytics on transcripts of customer calls and related metadata (such as length of call, hold time, number of transfers) to determine customers’ satisfaction sentiment and predict outcomes (is a customer a good credit risk or are they likely to close an account, for example). Insurance companies use text analytics on adjusters’ claim notes and demographic information to detect possible fraudulent claims.

SAS and acquisitions

While other software vendors make acquisitions to buy customers and market share, SAS does

things differently. SAS buys companies with specific and complementary technologies that enhance and extend SAS' own software lineup and help it better serve customers.

"We're committed to continuous, customer-focused innovation," said Goodnight. "The vast majority of this innovation is organic, coming from our world-class R&D and marketing efforts. Yet we're always on the lookout for great technology that complements our own and that helps us meet customer needs. Teragram's NLP technology meets these criteria, and we're excited to bring it and the talented Teragram team into the SAS family."

With the addition of more resources from SAS, Teragram's existing customers and OEM partners will see enhanced R&D and support from Teragram, which will operate as a SAS company.

Today's announcement came at [SAS Global Forum](#), the largest annual SAS users group conference, attended by more than 3,000 business and IT users of SAS software and solutions.

About Teragram

Teragram Corp. is the market leader in mobile and multilingual natural language processing technologies that use the meaning of text to distill relevant information from vast amounts of data. Founded in 1997 by innovators in the field of computational linguistics, Teragram alone offers the speed, accuracy and global language support that customers and partners demand to retrieve and organize growing volumes of digital information. Teragram helps customers perform more efficient searches and better organize information in more than 30 languages, enabling them to reach new markets and make better decisions. Teragram serves customers across the publishing, pharmaceutical, telecommunications and financial industries, including Ariba, Ask.com, Associated Press, CNN, Factiva, EBSCO Publishing, FAST Search & Transfer, Forbes.com, InfoSpace, NYTimes Digital, OneSource, Reed Business Information, Ricoh, Sony, WashingtonPost.com, Wolters Kluwer, the World Bank and Yahoo! <http://www.teragram.com/info>.

SAS Speeds Delivery of In-Database Capabilities with Teradata

Real-time analysis at the database level results in more streamlined decision making across the enterprise

Five months after unveiling its [strategic partnership with Teradata](#) (NYSE: TDC), SAS has announced that the two partners have reached significant technical and sales milestones, allowing joint customers to benefit from in-database analytics sooner than anticipated. In addition, the two companies have launched a new program to prepackage select SAS software on Teradata managed servers within Teradata environments.

“Today’s businesses are challenged to manage huge data volumes while optimizing analytical model development and deployment environments,” said Dan Vesset, Program Vice President for Business Analytics Research at IDC. “In-database analytics enables IT and analysts to be more productive and responsive to the growing demand by business decision makers for analytics-based strategic and operational decision support. Today’s announcement shows that SAS and Teradata are closer to delivering on the promise of in-database analytics, which is to give customers a flexible, powerful means for implementing predictive analytics and information analysis in one location.”

Together, SAS and Teradata are enabling businesses to exploit SAS Analytics through the core parallel processing functionality inherent in Teradata’s architecture. The new [SAS® Scoring Accelerator for Teradata](#) enables customers to translate scoring models created in [SAS Enterprise Miner™](#) into Teradata-specific functions to be executed directly within the Teradata environment. The results – enhanced model-scoring performance and more analytic models processed – mean faster predictive results. In-database scoring improves accuracy of data analysis, reduces data movement and streamlines analytic processes, helping businesses with enterprise data warehouses deliver business intelligence quickly throughout the organization while maintaining data reliability and integrity.

An initial benchmark of the SAS Scoring Accelerator for Teradata achieved a 4,500 percent performance improvement on the number of records scored per second versus traditional SAS scoring with Teradata. Being able to process 45 times the number of records provides customers the ability to significantly increase the creation and deployment of more analytical models that drive critical business decisions for competitive advantage.

SAS will also be the first business intelligence and analytics vendor to package software directly into integrated, managed application servers within the Teradata environment. Phase one of this program is available now with additional offerings available in Q4 2008. This program delivers seamless, transparent integration of data within a managed environment to provide lower total cost of ownership for IT.

“Organizations realize two critical benefits through SAS’ partnership with Teradata,” said Jim Davis, Senior VP and Chief Marketing Officer at SAS. “One is specific to business: Decision makers can be more agile and responsive to changing market environments by leveraging their data as a strategic corporate asset. The other is the IT advantage of standardizing on two market leaders for a single analytics, BI, data integration and data warehousing platform. By utilizing the processing power of the Teradata Database and running analytics where the data resides, SAS is giving organizations another way to be more efficient and effective by helping them fully leverage their technology resources.”

Since its October announcement, the joint SAS and Teradata Center of Excellence has participated in more than 50 global customer engagements spanning all vertical markets. Customer feedback has been extremely positive, resulting in the need to increase global staffing

by both SAS and Teradata to meet growing demand for consulting services and architecture assessment workshops.

“Customers are leveraging the benefits of our technical and solution architects working to optimize the performance and interoperability of SAS and Teradata,” commented Russ Cobb, Vice President of Alliances and Product Marketing at SAS. “Our recommended best practices in data integration, business intelligence and analytical modeling have resulted in significant benefits for shared customers. For example, claims reporting at a leading insurance company dropped from 40 minutes to less than one minute. Such dramatic improvement enables them to be more responsive to their customers.”

Added Darryl McDonald, Chief Marketing Officer at Teradata, “We are very pleased with the progress of the SAS and Teradata partnership – from both an R&D and a field engagement standpoint. While there is more to do, we have accomplished a lot in a short time. Our mutual customers are making smarter decisions with speed and precision, giving them competitive advantages in their markets. Our partnership with SAS takes this to the next level by ensuring they have even quicker access to analytic insights. For example, just consider the smart forecasting with SAS and Teradata that helped an entertainment company to lead its industry in sales.”

SAS and Teradata will continue to achieve key integration milestones over the next year that further extends the power of SAS Analytics and data transformations inside the Teradata Database engine. Additionally, the joint development plan calls for selected SAS solutions to be optimized with Teradata in key industries, beginning with financial services and retail. For example, the newest release of SAS Anti-Money Laundering leverages SAS In-Database capabilities for Teradata. Organizations will now have the option to execute scenarios and risk factors within their Teradata enterprise data warehouses to substantially reduce data replication and significantly increase processing speed. This enables financial institutions to more efficiently monitor hundreds of millions of transactions daily.

SAS advances enterprise intelligence with significant software release **SAS 9.2 makes industry-leading business intelligence, analytics, data integration more widespread; simpler to deploy and manage**

SAS has launched [SAS® 9.2](#), the latest evolution in enterprise software. SAS 9.2 combines market-leading advanced analytics, data visualization and collaborative data management capabilities that go beyond standard query-and-reporting BI solutions.

Organizations are under increasing pressure to leverage data and existing IT investments to drive success. SAS helps organizations meet the challenge with this latest enhancement to the industry's first and most complete [Enterprise Intelligence Platform](#).

"SAS 9.2 is revolutionary and evolutionary," said Jim Davis, Senior Vice President and CMO at SAS. "Businesses burned by technology vendors more interested in stock prices than customers will appreciate SAS' unrelenting focus on innovation and meeting customer needs. SAS 9.2 is non-disruptive innovation. It helps companies gather and analyze data and share intelligence for quicker, more accurate business decisions."

Beginning today with existing SAS customers and continuing throughout 2008, every offering from SAS will become available on SAS 9.2 to transform organizations from report-driven to intelligence-driven.

"With its enhanced analytics and data integration, improved deployment and management, and shared processes that help BI and analytics become even more widespread and useable throughout an organization, SAS 9.2 is a major launch for SAS and its customers," said Henry Morris, Senior Vice President for IDC's Worldwide Software and Services research groups. "The SAS Enterprise Intelligence Platform goes beyond traditional BI in providing a foundation for collaborative data integration, advanced analytics and timely reporting."

What's new in SAS 9.2?

SAS' annual investment of more than 20 percent of revenue in research and development ensures that SAS 9.2 will help customers transform how their businesses work and sustain a culture of fact-based decision-making.

SAS 9.2 is built on a foundation of proven, stable and integrated technologies. Among SAS 9.2's most significant enhancements is:

The best analytics anywhere are even better. SAS 9.2 gives customers the power to analyze data in more ways with new algorithms and procedures for predictive modeling, forecasting and optimization. They can achieve better model performance, explore complex data with visual queries and interactive graphics, and quickly derive value from large and complex data sets. These technologies help companies achieve what author Tom Davenport calls "[competing on analytics](#)," and what Stanford's Jeffrey Pfeffer dubs "[evidence-based management](#)." SAS 9.2:

Provides easy access to Bayesian methods, an approach for using prior information in statistical analyses. No other software vendor provides such convenient access. Bayesian methods are used, for example, to analyze clinical trials data for medical devices. When good prior information exists (e.g., on similar devices), the Bayesian approach may help companies evaluate device effectiveness through smaller, shorter clinical trials, resulting in quicker regulatory approval, faster time to market and significant cost savings.

Offers a new set of optimization procedures that incorporate powerful algebraic modeling and are ideal for analysts in many industries that need to build complex optimization models to produce best outcomes. For example, investment banks can leverage SAS 9.2's versatile optimization capabilities to discover the best possible balance between risk and return, a key competitive advantage.

includes sophisticated model-selection methods that handle thousands of variables and scale to very large data sets. Variable selection is increasingly important as data volumes grow in size and complexity. With SAS 9.2, organizations can select the best predictors and create precise models that uncover relationships. For example, bank analysts can incorporate thousands of variables from demographic, transactional and account data when creating models to predict customer profitability. SAS 9.2 makes it easier to reduce the set of variables to the essential predictors and create an accurate model that's easy to understand, maintain and deploy.

Other SAS 9.2 enhancements will include:

BI more readily available enterprisewide. SAS 9.2 helps users become more self sufficient with simpler, role-based interfaces. Embedding analytics into business processes and sharing results more easily enhances productivity and performance.

SAS 9.2 breaks down data silos through enhanced collaboration in data integration. Components can be reused more easily and users can monitor, communicate and trouble-shoot more efficiently.

Improved deployment, configuration and administration capabilities, including a new wizard-based interface, and adherence to standards for systems and change management and security, help IT handle growing demands.

Customers see value

"W.L. Gore & Associates has succeeded for 50 years by providing quality products that meet customer needs. The same can be said of SAS," said Dr. José Ramírez, Industrial Statistician at [W.L. Gore & Associates](#). "Our associates rely on SAS because SAS delivers, year in and year out. SAS 9.2, with its new analytical and data integration capabilities and improved implementation and management, demonstrates innovation, a hallmark of both SAS and Gore. We look forward to leveraging SAS 9.2 to improve our processes and deliver quality to our customers."

Best known for GORE-TEX fabric and ELIXIR guitar strings, W.L. Gore & Associates manufactures advanced technology products for the electronics, industrial, fabrics and medical markets. With more than \$2 billion in annual sales, Gore employs more than 8,000 people in 45 facilities worldwide.

"SAS 9.2 provides the powerful analytics and data management that we've come to expect from SAS," said James Shields, Marketing Analysis Manager at [IDEXX Laboratories Inc.](#) (NASDAQ:IDXX). "The new graphical and visualization technologies added to SAS 9.2 assist my team with effectively explaining the analyses results to senior management and other internal customers. And, the added dashboard capabilities of SAS 9.2 make SAS even easier to use by more people across the organization, fueling demand for greater analysis and fact-based decision-making."

IDEXX Laboratories is a global leader in pet health, with offerings including in-clinic diagnostic tests and instrumentation, laboratory services, pharmaceuticals, and veterinarian practice management software. IDEXX Laboratories also provides tools for monitoring the health of production animals and diagnostic technology to ensure the safety of drinking water and milk.

[Abt Associates Inc.](#), a major global research and consulting firm, uses SAS to support research on a wide range of social, economic, health and business issues, including clinical trials. SAS is used to evaluate Food Stamp programs, detect Medicare fraud, and evaluate [nursing home care](#), making sense of data from every U.S. nursing home contained in a huge Centers for Medicare and Medicaid Services database (MDS).

According to Louise Hadden, Lead Programmer/Analyst in Abt Associates Inc.'s Health Policy and Clinical Research division, "SAS 9.2 helps our researchers and consultants create accurate statistical models that analyze the large-scale MDS database. Results show patterns and trends across regions and states, highlighting potential areas for improvement at individual facilities. With SAS 9.2, Abt Associates can make evidence-based recommendations to our clients about appropriate next steps."

"SAS 9.2's ability to visualize data is unbelievable. Its presentation-style graphics help us clearly and quickly show clients what's going on in their data and, consequently, inform choices regarding programs, areas for improvement and further research."

"I've personally used SAS for 29 years, starting with punch cards at MIT in 1979," said Hadden. SAS 9.2 shows how far SAS has come. SAS has always provided the world's best analytics, and SAS 9.2 underscores this strength. With SAS 9.2's visualization and graphics, quicker processing speed and more agile data management and integration, we get accurate and reproducible results and answers faster than ever, thus serving our customers more effectively."

Getting schooled in compliance initiatives

Finance companies are overwhelmed with regulations, but the new rules can create opportunities for firms that mine data and go beyond compliance

By Bart Patrick

Successful financial services organizations can extract competitive advantage out of the growing welter of rules that, at first glance, seem designed to distract them from their core activity of making money.

While everyone has come to terms with the compliance obligations of the European regulations – Basel II and Solvency II, its equivalent for the insurance industry – there's a lot more going on out there.

The Markets in Financial Instruments Directive (MiFID), for example, came into effect on Nov. 1, and hot on its heels the following month came the third EU Directive on anti-money laundering. And the list goes on ... and on.

Fortunately, there are solutions that help companies grow more profitable and serve their customers better while they achieve compliance.

Historically, some compliance officers have been known to stand in the way of business owners who want to trade. All that changed with Sarbanes-Oxley in the US and Basel II in Europe. These regulations passed the buck to the boardroom. As a number of high-profile cases have shown, you might have five homes and a Learjet, but if you don't comply with regulations, you'll end up in jail. As a result, compliance officers now have more clout because the board has to back them; they are no longer considered the equivalent of corporate traffic wardens.

Competitive advantage

Compliance is one thing, but turning it around to competitive advantage is another. The two objectives, however, are linked through quality data and analytics that can enable firms to obey the rules and drive up profit at the same time.

When new regulations loom on the horizon, many firms go into a denial phase because they invariably have all manner of systems already in place to monitor such things as operational risk, market risk, credit risk and sensitivity analysis, which are necessary to determine the level of economic capital that needs to be held.

Then comes a compliance phase when the new challenge sinks in. This often means shoring up existing systems to provide a series of silo-style, tactical solutions to make them compliant.

But this is not a great way of doing things because firms can end up with a series of processes and a workplace that merely creates friction and drag on future progress.

Underlying all that is the data issue. Given the size and history of many large finance firms, they have data everywhere, and it can be 20 or 30 years old and of dubious quality. And then there's the problem that data captured in the past is of little use in taking the business forward.

Companies are in the business of making money and creating shareholder value rather than compiling data purely to become compliant. The two, however, can be done simultaneously, and the emphasis on how to achieve this is subtle but very different.

Accepting change

Change management nets millions for experts in the field. Most people in the industry are wary of

MiFID, a major part of the EU's scheme to integrate Europe's financial markets. But its effects, like the big companies grabbing up the boutique firms that won't be able to afford compliance, have yet to be felt.

On the bright side, MiFID presents new opportunities for data mining because of the volume of data that needs to be held to meet "Best Execution" criteria covering such things as order volumes, sizes, costs, price spread and client classification. Rather than just toeing the line to meet the requirements of the FSA, companies should aim at analyzing the data they're required to gather in order to predict customers' buying strategies and future highs and lows to help balance the ebb and flow of commerce.

The data can help customers, too, by giving firms a better insight into what they want and the risks they are prepared to take. Matching clients' risk to the investment risk provides opportunities for selling more and higher-value items.

New regulations can unlock the door to new business, provided quality data and the right analytics to exploit it are in place.

Bio: Bart Patrick is Head of Risk Intelligence for the SAS UK office.

TDC tackles supply chain management

An optimized supply chain = millions in profits for Denmark's leading telco

Leading Danish telecommunications provider TDC is looking to supply chain management (SCM) to propel the company to even greater heights. To TDC's customers, a more efficient supply chain will mean faster deliveries and better service; for the company, it will translate into profits in the hundreds of millions (in Danish kroner).

Market leadership, top performance and a "customer culture" are the goals; in concrete terms, this means achieving two-day lead time, 1 million broadband customers and zero customer failure, all by 2008.

TDC is already a big player in the market with unlimited potential for growth, but the organization is large, its products are complicated, and the pace of development is brisk. The result is that not all of the company's value chains are equally optimized -- and optimization of the supply chain will be the decisive factor in realizing company goals.

Profit in the hundreds of millions

In today's market, the supply chain is one of the final frontiers for finding untapped profits, and there is increasing pressure to trim and optimize via SCM.

TDC has a broad definition of supply chain, viewing the supply chain as the "engine" of the entire system, not simply a discipline for warehouse workers and purchasing. As such, the company is looking at the total delivery process.

In practice, 11 SCM experts at TDC Supply Nordic "sell" services to internal customers within the company. Supply chain management is firmly embedded in upper management as a strategic and cross-disciplinary practice that requires cooperation between the individual business units and TDC Supply Nordic. TDC's business climate emphasizes that SCM is about creating a profitable business.

The company's goal is to be able to track the costs associated with its supply chain management efforts. More than 100 managers and staff participate in supply chain management projects that the company estimates will yield an annual profit in the hundreds of millions. These profits will begin posting in 2009.

TDC aims to halve inventory

"We have three goals for the company as a whole," says Dan Kronholm, VP of Supply Nordic at TDC Group Staff. "We aim to halve inventory; we want to cut annual logistics expenditures by 15 percent; and we want to ensure that we can phase out certain products so that we aren't losing money by holding on to large amounts of old product. This should all coincide with an increase in delivery precision and enhanced customer and employee satisfaction. In addition, the business units will always be in charge of the projects: It needs to be sound business, and not just SCM for SCM's sake."

Kronholm wants to dispel various myths when it comes to logistics. For instance, it is indeed possible both to halve inventory and to improve lead times. It is also possible to increase the number of broadband customers, even while reducing inventory size. The key, says Kronholm, is to make TDC more order-driven and also to work intensively on streamlining all delivery processes.

SCM from top-down and bottom-up

The SCM effort relies a great deal on timely and accurate information. TDC centralizes IT support for these processes so that many transactions can be automated. TDC attains better integration with suppliers through standardized IT systems, thus optimizing the entire supply chain.

"It is entirely appropriate to speak of supply chain intelligence," says Supply Chain Manager Steen Mørch of TDC Supply Chain Development. "The information gathered by IT is used in evaluating and following key performance indicators [KPIs], for instance, for stock tie-up, product flow and much more. We have also begun an array of automated reports, which has freed up around 80 percent of our time for analysis, with the remaining 20 percent still spent on data

acquisition. In addition, we perform serious statistical analysis as a central step in our delivery process optimization efforts. We have a good partnership with SAS in all of these areas.”

The supply chain management effort at TDC is both broad and deep. The SCM experts at TDC Supply Nordic are confident that their efforts will be successful because, although SCM is anchored in upper management as a top-down structure, it is also characterized by a bottom-up structure in projects at the business unit level.

The SCM experts spend a lot of time communicating at ground level in order to promote the process of change and to keep the SCM efforts rooted in reality. They often stress that SCM is not just aimed at the bottom line. Several of the SCM projects, for example, have employee satisfaction incorporated as a KPI. The idea is that workplace satisfaction is a good indicator of whether, as a TDC employee, you are delivering the customer’s desired solution on time, every time. This may be the real reason that supply chain management is so convincingly underway at TDC.

SCOR, Lean or Six Sigma?

What's the right process improvement methodology for you?

By Michael Newkirk

Business process improvement initiatives are critical, but now that so much of the low-hanging fruit has been picked, companies and organizations have to weigh ROI carefully. Should you:

Spend money on Six Sigma Black Belts? Follow the SCOR road map to identify winning projects? Use Lean to gain speed in the value chain?

All three methodologies are intended to improve the organization by optimizing performance, identifying and reducing variation, and eliminating waste. But should they be competing or separate methodologies?

A Six Sigma Black Belt, after all, costs upward of US\$150,000 a year in training, salary and benefits. Lean and SCOR programs also have significant training and consulting costs associated with implementation. Although individuals educated in these efforts should know which projects to tackle for maximum return, practitioners tell us they are often frustrated in searching for areas to apply these initiatives and in choosing the right methodology for the job. They also say they face challenges in getting the data needed to implement initiatives.

Many practitioners have experienced the frustration of bringing SCOR, Lean and Six Sigma under one roof. One option is to collaborate as a team using SCOR as a kind of control and “top-down” view that provides an overall strategy to guide organizations. The Supply-Chain Council, sponsor of SCOR, hosts a special interest group complete with workshops devoted to this convergence discussion.

What is critical to the success of any business improvement – whether a standalone initiative or an approach using multiple methodologies – is organized, accessible data, analytical business intelligence applications and a common “workbench.” If practitioners and managers can see the data through a portal, they can know what is being worked on, view the current road map, see where resources are being deployed, predict results and display the status of projects under way. Ideally, this common, enterprise view would allow for extensive collaboration, consensus on priorities and insight into which methodology or combination of methods to employ.

Getting the most out of Six Sigma

The most well-known of the quality initiatives is Six Sigma. Pioneered by Motorola and made famous by GE, it is a statistics-based and highly disciplined business improvement program. Armed with the core toolset and the problem-solving methodology known as DMAIC (Define, Measure, Analyze, Improve, Control), Six Sigma Black Belts focus on stability and accuracy – looking to rid the process of variations that turn out unacceptable levels of defects. This schema, primarily begun in manufacturing companies, has since moved into product development, supply chain and back-office processes, and has been adapted by industries as diverse as healthcare and retail.

Because of the cost of training and employing a Six Sigma Black Belt, companies typically won't deploy one on a project with a cost savings of less than \$250,000. Even the less-trained Green Belts, who typically work in business units, aren't supposed to tackle an improvement process that yields less than \$50,000 in savings in many organizations. For very large companies, identifying projects that meet the criteria isn't difficult. For midsize to small companies, a Six Sigma program investment is substantial – and sometimes not considered worth it. But what most Six Sigma programs cannot do is identify what part of the organization is most likely to benefit most from the program.

One of the huge costs associated with Six Sigma is the hunt for data. Black Belts devour data, and the hunt for data coupled with cleansing and organizing it can consume half of the time they typically allot to a project. One Six Sigma participant describes the data as “coming at us from all directions.” The need for accurate data – whether it is surgical cancellation rates at hospitals or defect rates in plant production processes – is sometimes the stumbling block for any size organization attempting to implement a quality initiative. Black Belts also note a need to visualize the information they are gathering and analyzing so that it is easier to understand the complexity of relationships and potential causation and clearer to present to line-of-business managers and upper management. Companies have told us it takes hundreds of hours a month to transfer the information into a scorecard.

Seeing improvements with Lean

Evolving from Japanese manufacturing initiatives like Kaizen (continuous improvement), Kanban (just-in-time), Toyota Production System and 5S (Visual Workplace), Lean is geared toward waste elimination and value-chain improvements. If a company maximizes process flow and flexibility, it can achieve breakthrough financial impacts. Like Six Sigma, it is dependent on process data, but it also requires data integration and forecasting abilities.

Lean implementations are failures if the new processes cannot get out of the departmental silos that trap so much information. Likewise, if IT cannot accommodate the recommendations of the exercise, the organization has just wasted valuable time and money. Forecasting and risk management influence the process as well. A lean implementation in the supply chain, for example, is a failure if materials and products don't arrive on time because of seasonal peaks and valleys or unexpected events like hurricanes.

Adding value with SCOR

Developed by the not-for-profit Supply-Chain Council, SCOR (Supply Chain Operations Reference) is a model that links process elements, metrics, best practices and features associated with supply chain execution. It helps to identify and quantify critical opportunities for improvements not only within the supply chains of a single company but also between multiple trading partners. It describes a continuum of processes: Plan, Source, Make, Deliver and Return. SCOR works best with companies that have an enterprise information platform that can carefully track this continuum through KPIs and scorecards or at least provide the data so that a qualified enterprise platform can acquire the data, analyze it and surface it to the people who need to see it.

Although rooted in the supply chain realm, SCOR adherents see a role for the methodology as the gatekeeper – identifying the projects most likely to render ROI using SCOR, Lean or Six Sigma. There is already a natural link between Lean and Six Sigma at the program and project execution level. Six Sigma has the project tracking and financial accountability elements. Lean helps “surface the rocks” that become ideal targets for Six Sigma. The two combined provide a powerful results-driven program.

Ask these questions to reap benefits

But neither SCOR nor Six Sigma offers a methodology to align business goals with strategic improvement opportunities. As the SCOR convergence council has pointed out, this is particularly critical in an organization with complex supply chains and a diverse product line.

Choosing the right methodology – or using all three – is just the start. Before your company can truly reap the benefits of quality programs, you need to ask several questions:

Is our data integrated, clean and in one location? Data sitting in silos, incompatible or duplicative data, and – most importantly – data that requires the intervention of the IT department to retrieve will make any business improvement program much more costly than necessary. A robust business intelligence solution is a must.

Can I quickly see what is working in quality programs? If you would like to report to Wall Street analysts that a Six Sigma initiative saved \$1 million on a new product, do you need to deploy a portion of your staff to dig through information, or is that information readily available on a dashboard? More importantly, is the information up to date? Can a portal tell at a moment's glance what the quality programs are doing for the company's bottom line and how they compare to one another?

Can my staff visualize the results of quality projects? Six Sigma Black Belts parachute into departments they don't work in. Being able to show how a process could be improved helps win over reluctant team members to the results of a project. An easily integrated visualization application is an important component.

Do I have an application powerful enough to analyze and (especially when using Lean) forecast? Can my staff – without any programming skills – create “what if” scenarios that will help identify the best methodology for improving quality and performance?

Using SCOR to align corporate goals and develop and execute a plan for improvement targets, and then employing Lean or Six Sigma or both to the prioritized projects, is a way forward for companies that recognize that survival is truly the provenance of the fittest. Just having these methodologies under the roof isn't enough. They need to be converged and integrated methodologies working off the same platform.

A focus on integration will provide the organization with optimized yields and improvements. The trend toward converging methodologies is really about change management and its logical extension to platform status. After all, change is not a one-time event or even a series of one-time events but must be a culturally ingrained part of the organization's DNA. Organizations want to embrace change, but doing so requires an integrated approach to using methodologies and a strong enterprisewide platform that goes beyond business intelligence to include data integration and analytics.

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Events

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<http://www.sas.com/events/execonf/invite/hec08/index.html>

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April 29-30, London

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May 13-15, Cary, NC

F2008 Business Forecasting Conference

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