

# Intelligence

Butler Group Subscription Services

## Business Intelligence TECHNOLOGY AUDIT

### SAS

#### SAS Strategic Performance Management Solutions

**Abstract** *The traditional methods of measuring company performance can no longer be relied upon to provide a true reflection of the health of a business. Historical financial information alone is not enough to manage the performance of an enterprise, while purely tactical reactions will not help the enterprise to compete in today's fast-moving markets. The SAS Strategic Performance Management Solution enables management to take a proactive approach that links change to strategy and action. It can empower the whole enterprise and enable management from a position of strength, based on relevant, up-to-date information. Acquisition of such intelligence is the goal of various performance management initiatives, including the balanced scorecard; however, SAS is not limited to this method and can support the management framework that an organisation may choose to adopt.*

<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>Automated strategy mapping technique links to underlying data, a unique feature of SAS.</li> <li>Supports any management framework and integrates tightly into these solutions.</li> <li>Strong market presence and extensive customer base.</li> <li>Considerable domain expertise in its chosen market.</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>SAS would place a lower emphasis than its competitors upon pre-packaged Key Performance Indicators (KPIs) and template usage.</li> </ul>
<p><b>FUTURE POTENTIAL</b></p> <p>In the future, SAS will extend its offering by integrating and building new models that leverage the acquisition of ABC Technologies. In particular, simulation and forecasting capabilities will be added to the strategy maps that utilise ABC models and high-end statistics to predict total cost to change and thus profit.</p>	

## ► FUNCTIONALITY

SAS Strategic Performance Management captures a company's corporate strategy and enables management to take a proactive approach that links change to strategy and action. It is part of SAS' comprehensive range of Business Intelligence (BI) solutions, which also includes customer intelligence, supplier intelligence, and organisational intelligence (dealing with the assets of a business). These solution areas are the subjects of a series of Butler Group Technology Audits that are companions to this report.

It is obvious that all organisations competing in today's markets require some method of managing performance. The simple traditional methods of monitoring financial and operational performance fall short of the agility required in today's competitive climate. The enterprise needs a management system that mobilises resources throughout the enterprise in order to succeed.

This growing realisation has resulted in an increasing number of companies believing that non-financial criteria should be included in the measurement of the health of an organisation. SAS has used its experience in BI and analytical intelligence, together with its understanding of the market, to produce a solution designed to address this requirement.

SAS has built its business on providing solutions that give an enterprise 'The Power to Know' its customers, its organisation, and its suppliers. With SAS Strategic Performance Management, the company provides the means to focus, communicate, and collaborate on strategy from a single portal, and it has the power to manage activities across the whole enterprise.

SAS Strategic Performance Management is flexible and can accommodate the many management frameworks available for measuring enterprise performance. One popular framework was conceived by Dr Robert Kaplan and David Norton in 1989. This combined financial and non-financial measures through the Balanced ScoreCard (BSC). They initiated a research study to deal with the shortcomings of traditional financial measures of performance.

SAS can accommodate any framework, not just the BSC.

### **Measuring by Scorecard**

Kaplan and Norton published their findings in 1996, the key principles of which were:

- Traditional management focus has been on historical measures so that when changes were made, they were reactive with little or no strategic focus. A BSC recognises both historical and future indicators and takes account of relationships between process, staff, and customers. It provides a clear direction towards a vision.
- It provides a framework to translate a strategy into operational objectives, measures, targets, and initiatives for four key perspectives: Financial; Customer; Process; and People.
- An organisation may use between three and six perspectives, which should accurately guide the enterprise to focus on a balanced set of areas that are appropriate to its vision.
- A BSC needs to be the cornerstone of a management system as it aligns and supports key processes.
- It displays cause-and-effect relationships and an enterprise can utilise this information to attack the root causes of problems early, rather than the symptoms. This can avoid the problems becoming issues.
- As with other projects to implement change, executive sponsorship is critically important. Top management must identify the measures and drivers and should provide a strategic feedback system.

A recent survey discovered that 50% of European companies believed that using the BSC method would increase shareholder value, and 35% of large companies had implemented the BSC method. Whereas 71% of companies believed that Internet business would increase shareholder value, only 42% of companies were measuring their e-business performance.

The BSC is a concept that translates the mission and strategy of an organisation into a coherent set of objectives and measures for the whole enterprise, which

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can be distilled into actionable objectives for individual business units and members of staff. It addresses the problem that few enterprises effectively execute their corporate strategy because those who implement it do not understand it, it is not able to be actioned by

individuals in the organisation, and it is not measurable by existing management systems that invariably concentrate on purely financial targets.

A company's vision should be communicated throughout the organisation to its workforce and it should empower them to think proactively, so avoiding the need to react to surprise events. Decisions need to be made on hard facts, utilising the corporate knowledge of the organisation, in order to stay ahead of the competition.

## How SAS Developed its Solution

SAS listened to its customers and found that over 50 companies in its Europe, Middle- East, and Africa (EMEA) region were using SAS software to produce their own BSC solutions. The customers' IT developments were taking between three and six months and, naturally, they wanted to speed up this process.

SAS found that business strategists wanted a tool that would model the whole process and they wished to be able to prototype ideas quickly, without having to involve IT professionals. Management consultants also had a requirement for a tool so that they could differentiate their service, add intellectual capital, prototype quickly and easily, and deliver repeatable solutions.

As a result, SAS introduced its SAS Strategic Performance Management solution, which enables the organisation to capture its management philosophy and translate it into metrics. The solution can capture an enterprise's strategy for performance management. It assists in the integration, distribution, and analysis of information throughout the enterprise to make the right decisions. It provides simple, clear indicators of performance that helps the enterprise see the causes and effects of its strategy.

Through concentration on the overall view of the business, the true sources of business best practice and business failure can be identified. This enables management to manage the enterprise from a position of strength. An example of the use of BSC in an extended enterprise is that its dimensions will include investor exposure, business capital, customer relationships, the value chain, and the capabilities and knowledge of any and every point within the business.

SAS Strategic Performance Management Solution has three key elements that bring benefit to the enterprise: it provides a map to enable the journey to be planned; it provides a compass to keep the enterprise on course; and it provides a knowledge base so that new opportunities can be explored.

- The Map is used to create the management framework, such as a BSC, along with the corporate strategy maps and measures. It can create different views of key internal processes, and also model strategic objectives, measures, and initiatives.
- The Compass is a Web-based environment, used to communicate results and to aid in collaboration. Text and data are combined to provide complete cause and effect pictures of relationships between internal processes.

- The Knowledge Base automates information processes in order to enable the sharing of understanding. Users can receive automatic alerts regarding either excellent or poor performance, both of which merit close awareness. Trends can be analysed in the knowledge base in order to identify potential problems, enabling proactive measures to be taken before failures can occur. IT professionals can use the SAS knowledge base to automate the collection and distribution of enterprise information.

## **Flexibility**

SAS Strategic Performance Management Solution has been designed with flexibility in mind. It can model any performance management framework. Concepts and ideas can be mixed and matched, and can be changed, as the business evolves. It can work with an organisation's Customer Relationship Management (CRM) system, Supplier Relationship Management (SRM) system, financial management system, and others, to build on its performance management system.

A comprehensive range of intelligence tools is available from SAS, including analytics and data mining. With SAS Strategic Performance Management, an enterprise can track, measure, and execute its corporate strategy. Communications throughout the enterprise are simplified in order that action can be taken quickly and efficiently. The collective knowledge of the enterprise's employees is made available and each individual's potential can be utilised.

The world would be a much duller place if knowledge was comprised wholly of numerical data. In order to provide a complete picture of cause-and-effect relationships, data, and text – structured and unstructured information – has to be combined. SAS Strategic Performance Management enables collaboration so that interaction between members of staff is possible, and so is the sharing of results.

User portals can be customised so that individuals can designate the information and reports that they wish to receive, and when and how they wish to receive them. This can be via e-mail, by the Web, to a mobile phone, or a Personal Digital Assistant (PDA). Different views of internal processes can be distributed according to individual requirements. Similarly strategic objectives, measures, targets, and initiatives can be individualised.

## **Enabling Proactive Management**

Users are able to analyse data in new and different ways with SAS Strategic Performance Management in order that they can anticipate business trends and develop scenarios. Business users can receive automatic alerts to warn them of poor performance or, conversely, inform them of excellent performance. These early warnings mean that action can be taken, if necessary, prior to any effect on results. The knowledge, which will not previously have been available to the organisation, can then be shared throughout the whole enterprise. This can have a major influence on the whole culture of the organisation through the empowerment of the individual.

Strategic Performance Management can pass information to other applications. It integrates with other SAS solutions for process intelligence, human capital management, financial budgeting, consolidation, reporting and analysis, IT management solutions, and externally focused solutions for supplier and CRM.

The enterprise can be genuinely proactive because its people can have a complete picture to measure its success. Historically, measurements have been available after the event, such as sales, profit, and production figures. Strategic Performance Management helps ensure that the enterprise's staff are pulling in the same direction and are focused on the goals of the enterprise. It automatically brings together information on key success measures to display the current status. It also shows why things are happening so that appropriate corrections can be made.

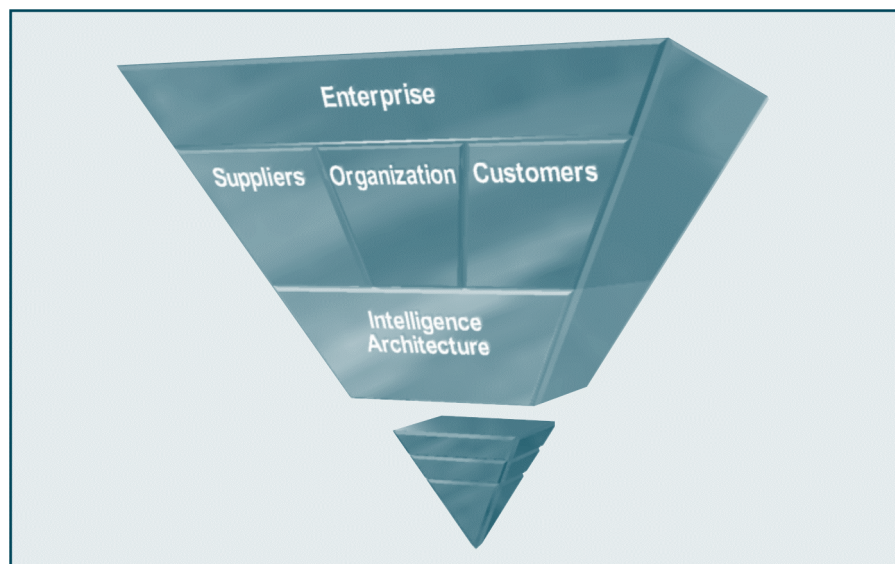
SAS Strategic Performance Management integrates closely with SAS Data Mining solutions through which organisations will be able to discover new key performance indicators, performance segments, and value chains.

## ► DEPLOYMENT

The SAS Strategic Performance Management solutions are available on the following platforms:

Category	Platform
Mainframe	OS/390, z/OS, CMS, VSE
PC	Windows 98, NT4, 2000, XP; Apple Mac
UNIX	Solaris, HP-UX, AIX, Tru64, IRIX, ABI+ for Intel, Linux
Mid-Range	OpenVMS

Building upon the core foundations of the enterprise – its basic operational infrastructure, comprising the operational databases and applications – SAS creates an Intelligence Architecture, as illustrated below. This architecture in turn supports the business activities of the whole organisation, relating to specific elements such as supplier or customer interactions. The architecture as a whole is made up from various SAS products, selected according to the needs of the organisation involved.



### The Intelligent Enterprise

In functional terms, this architecture fully supports the extraction, transformation, and loading of data from databases optimised for BI applications. Above these elements are the BI and analytics applications, supported in turn by a strong metadata layer and tools. Open standards are supported throughout, including ODBC, SQL, Common Warehouse Meta Model (CWMM), CORBA, DCOM, and Java.

Acquisition of data is crucial for analysis, and SAS makes extensive use of its SAS/ACCESS Software interfaces to ensure data access regardless of the native databases or platforms being used by its customers. SAS/ACCESS interfaces include: DB2 under OS/390, VM, UNIX, or PC; CA-OpenIngres; Informix; ODBC and OLE DB; Oracle Rdb; Sybase; Microsoft SQL Server; and Teradata.

Access to non-relational database systems and other data sources includes SAS/ACCESS interfaces to: ADABAS; CA-DATACOM/DB; CA-IDMS; IMS-DL/I; PC File Formats; and System 2000 software.

SAS/ACCESS also interfaces with leading ERP vendor products, including: Baan; PeopleSoft; SAP; SAP BW; and SAP R/3.

SAS has a range of support services available to assist its clients in getting the best out of the Strategic Performance Management product, including implementation support and training.

## ► PRODUCT STRATEGY

Although the need for intelligence is universal, and can therefore be regarded as a horizontal market, SAS also specifically supports the unique demands of specific verticals, including Banking, Insurance, Communications, Pharmaceutical, Retail, Utilities, Manufacturing, and the Public Sector.

Many organisations confronted by difficulties in ensuring that strategic decision-making can be supported by dynamic and accurate intelligence have adopted the BSC model, in some cases creating frameworks independent of vendor solutions. Through its flexibility, SAS Strategic Performance Management can be adapted to work the way that an organisation does. The organisation's strategy, which of necessity is unique, can be mapped into whatever framework is desired. A template based on a BSC is available to enable the enterprise to use the solution immediately with little initial effort. The SAS solution has been certified by the Balanced Scorecard Collaborative, the co-founders of the BSC system.

The system is easy to use so that business users can create and maintain a map of key performance indicators at every level of the organisation, from top to bottom. When this map is complete, SAS Strategic Performance Management allows this information to be passed to the knowledge base. This provides everyone in the enterprise with the information and the understanding of how activities relate to one another and how they affect the strategy of the enterprise. SAS Strategic Performance Management gives IT professionals the tools to easily support the delivery of information through automating the collection, distribution, and publication of results.

Investors, shareholders, and stakeholders want to understand how a company is going to create future wealth for them. Managements need to be able to explain how the company operates, as a greater understanding enhances the reputation of the organisation and leads to reduced risk from the investor viewpoint. The successful transfer of knowledge about the company can then lead to an improvement in the share price and a reduction in the cost of capital.

Butler Group believes that Strategic Performance Management can be an ideal vehicle for communicating the potential of an enterprise and that SAS is ideally positioned to support leading organisations to help them achieve a better Return On Investment (ROI).

## ► COMPANY PROFILE

SAS was launched from North Carolina State University in 1976, by Dr. Jim Goodnight, now President and CEO, and three of his colleagues. The company has its headquarters in Cary, North Carolina, and since 1976 has grown to encompass over 8,000 employees, and 156 offices worldwide. European Headquarters are located in Heidelberg, Germany, and in the UK, SAS has offices in Marlow, Manchester, and Glasgow.

SAS integrates leading data warehousing, analytics, and traditional BI applications to create intelligence from massive amounts of data. It is one of the leading vendors in the decision support and data warehousing market, providing integrated enterprise information-delivery systems. SAS maintains a significant budget for Research and Development (R&D), with the stated aim of driving its domain expertise in analytical intelligence and information capture out to end-users through its solution range.

The company is ranked as the largest privately held software company in the world, and has experienced 21 consecutive years of double-digit growth. Total revenues for the financial year ending 31 December 2001 were US\$1.13 billion. Revenues for SAS UK in the same period, increased by 19% to £60.1 million.

Over 38,000 customers at business, government, and university sites use SAS software solutions. Customers include 98 of the Fortune 100 companies, and 90% of the Fortune 500. SAS has a strong network of partners through its SAS Alliance programme, including Computer Sciences Corp., Hewlett-Packard, IBM, Intel, Intraspect, KPMG, Origin, PricewaterhouseCoopers, and Sun Microsystems.

## ► SUMMARY

SAS Strategic Performance Management is designed to translate strategy into actions that can be measured and monitored throughout the entire organisation. Possession of tools capable of quantifying and understanding business activity and intelligence greatly enhances the ability of any organisation to adhere to any chosen BSC model.

## ► CONTACT DETAILS

### **Worldwide Corporate Headquarters**

SAS Institute Inc.  
100 SAS Campus Drive  
Cary  
NC 27513-2414  
US

Tel: +1(919) 677 8000  
Fax: +1(919) 677 4444

[www.sas.com](http://www.sas.com)

### **UK Headquarters**

Wittington House  
Henley Road  
Medmenham  
Marlow, Bucks  
SL7 2EB  
UK

Tel: +44 (0)1628 486933  
Fax: +44 (0)1628 483203

E-mail: [sam.wood@suk.sas.com](mailto:sam.wood@suk.sas.com)

[www.sas.com/uk](http://www.sas.com/uk)

### **EMEA Headquarters**

SAS International  
PO Box 10 53 40  
Neuenheimer Landstr. 28-30  
D-69043 Heidelberg  
Germany

Tel: +49 6221 4160  
Fax: +49 6221 474850

[www.sas.com](http://www.sas.com)

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For more information on Butler Group's  
Subscription Services, contact:

Europa House, 184 Ferensway, Hull, East Yorkshire, HU1 3UT, UK  
Tel: +44 (0)1482 586149 Fax: +44 (0)1482 323577 [www.butlergroup.com](http://www.butlergroup.com)