*We are linking to Adobe Acrobat files. If you are not familiar with this software please see **further information**.*

Business Engineering

Blazing new trails...

In the past, software systems were used in isolation in specific business areas, like in the accounting or human resources departments, and only integrated later. This was in keeping with the historical development of standard software, which in the early 1970s, was designed from a narrow, single-business area perspective. Implementation was application-focused. First came financial accounting, then materials management and later sales, production and marketing. This approach meant that the full value-added potential came only after implementation of the last application. Function-oriented business structures cemented this approach until internal pressure for innovation broke down the rigid interfaces between functional areas.

Cost-effective platforms for client/server computing

In recent years, two major technology trends have coincided to drive business change: new, more productive and cost-effective platforms for client/server computing and the use of new, process-integrated business solutions. Such trends have enabled companies to be more responsive and flexible -- to customers, market changes and global competition, as well as to cut out unnecessary layers and give more decision-making power to individuals. Configuring business software is the key to a flexible and maintainable solution that matches the enterprise redesign.

***Download** „Business Engineering Workbench“ picture for visalization of the facilities available for design and implementation support.*

Model-driven implementation

SAP's aim with business engineering is to provide an comprehensive support for all design, planning and implementation activities over the entire life cycle. We embrace business change as an evberpresent aspect of today's enterprise. Delivered with every R/3 are thousands of models that have active connections to the run-time system. The model-driven implementation and system configuration, referred to as "configure to order", is our way of helping customers have the right system in place. Our support can be seen in a few different areas:

Business Blueprint

The basis of this model is the R/3 System. Today, it is the definitive description of R/3, providing a comprehensive view of all the processes available in the system. The blueprint is a roadmap, showing users the way to successful business process modeling and R/3 implementation. The blueprint helps consultants and customers understand special business process design and engineering needs. On a broader scale, it can also aid those with standard business requirements, for example during implementation, or those who wish to extend their client/server applications with customer-specific situations.
The aim of the blueprint is support customers during and after their projects with a clear and easy to read description of the business processes within R/3, helping to shorten up implementation time.

Over 800 predefined business process models

In Release 3.0, SAP offers more than 800 predefined business processes that roughly correspond to different industries and kinds of corporations in an event-driven process chain (EPC) model. Developed by SAP, the R/3 Reference Model enables companies to quickly identify opportunities for optimizing processes in all areas of the business. Standardized "event-controlled process chains" represent sophisticated company procedures and entire business processes in a clear and easily understandable way. The user can compare his or her situation to the "best business practices" found in SAP's application and quickly see where there is potential for optimizing his business. This provides the basis for the describing of company-specific needs, allowing customers to design their business process based on the SAP developed standard without having to start from scratch.

Standard for Visualization

Visualization of the business blueprint is important as there are few standards today. Our Graphical models help users select and understand the software, visualizing how data flows through business areas and showing how various functions interact with each other. Ultimately, customers can map their organizational structure to the R/3 System using the model. The blueprint is like a bridge that connects a company's process structures with those of R/3 -- from sales and production and materials management to financial accounting and human resources management. SAP is actually the first software vendor to publish the structure of its software in visualy attractive models.

Component-based Application Design

The Business Engineering Workbench is centered around the business blueprint and includes a model of application components, although the terms application areas or business modules would do equally well as descriptors. The application components act as a navigation aid, so that you can navigate down to all logical parts with a uniform terminology. You could, for example, navigate down to purchase requisition creation, to see which processes, object models, and data models are involved in the procedure.
SAP has modeled the structure of R/3 in a way that can be used by SAP customers and consultants for business analysis and implementation projects. This three-level model of application components describes the complete R/3 application. In this information base, the relationships between business events, business functions, business objects and organizational units are contained and can be evaluated from different perspectives.
The components in R/3 drive the naviagtion through the system and hence are a key part of the R/3 Business Navigator - the browing facility in the Business Engineering Workbench. Furthermore, the application component model can be used in conjuction with our Desktop Integration SDK to expose the structure of R/3 to third party implementation and modeling tools.

The intelligent way to configure R/3

The business blueprint or R/3 Reference Model with its application component model is the first step towards providing a unified understanding of business design behind R/3. The structural information contained in the blueprint is invaluable for simplifying R/3 implementation. In the next few weeks we will look at other parts of the Business Engineering Workbench and explain how SAP is blazing new trails for intelligent business software configuration.