



Business Information Warehouse

A ready-to-go data warehouse for R/3,
complete with integrated business know-how

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Business Information Warehouse – A ready-to-go data warehouse for R/3, complete with integrated business know-how

Overview

For your company to succeed, you vitally need immediate and fast access to data of relevance to decision-making and the ability to flexibly analyze it. But solutions to meet these needs also have to be designed for quick and easy integration into existing applications and business processes, which are often in a state of flux.

SAP's Business Framework is a strategic product architecture that meets this requirement. It enables your company to incorporate new business functions and technologies into existing application environments—quickly and without any disruptions. This ensures flexibility and long-term competitiveness, while minimizing operating costs.

Within the scope of the Business Framework, SAP is adding a data warehouse to the R/3 System in the form of a separate module that, as a Business Component, offers all the benefits of fast implementation, flexible maintenance, and open interfaces. The "Business Information Warehouse" combines the large pool of business know-how that SAP has accumulated over many years for focused reporting and flexible analysis with the modern technology of a cutting-edge data warehouse architecture. This marks the advent of a solution that links the applications of R/3 with a data warehouse based on a consistent business process model. It closes the gap between business processes and decision support already on a technological level, while eliminating the need for an elaborate organization and extensive maintenance procedures.

Seven excellent reasons to take advantage of the SAP Business Information Warehouse:

- It is an information pool comprising consolidated information from internal and external sources.
- It is equipped with preconfigured information models and reports, as well as automated data extraction and loading methods.
- The R/3 applications and the data warehouse are based on a common business process model (meta-database).
- Thanks to the standardized, individually configurable Business Explorer, it lets you perform a vast variety of evaluations and analyses.



- ❑ A ready-to-go warehouse, it is fast and easy to implement.
- ❑ You get a fast return on your investment owing to easy implementation, low operating costs, and quickly derived benefits.
- ❑ It is open for integration with additional applications and tools where required

At the time of publication, Business Information Warehouse was undergoing trials in a number of pilot projects. Detailed information on availability and features is currently being released in special SAP announcements and the media.

Information as a Competitive Advantage

The quality of business decisions is intimately tied to the quality of the available information. Fast, flexible and focused access to information of relevance to decision-making has long since become a pivotal factor for corporate success. You can significantly boost the efficiency and effectiveness of your planning, control and monitoring processes by gaining the ability to quickly and reliably cull mission-critical information from the flood of operative data and make it available to all levels of your company in response to actual needs.

SAP has been meeting these requirements with sophisticated information systems for targeted reporting and flexible analysis of data from both operative applications and external sources. The information systems integrated in the R/3 System and assembled in the Open Information Warehouse supply users at all corporate levels with highly informative data to support planning and decision-making.

Companies Need Better-Quality Information

Companies want better information, and their expectations are growing in pace with the challenges they must master to succeed in the face of globalization and rapidly changing markets. What they vitally need now are integrated information collection, detailed data analysis, incorporation of advanced multimedia technology for presentation, and user-friendly functions. They also require new data views to facilitate comparative studies and measurement of performance. It is now becoming easier to meet these needs, thanks to new, trail-blazing technologies—such as the Internet and Online Analytical Processing (OLAP)—that enable crucial information to be extracted from large volumes of operative and historical data.



Applications and a Data Warehouse From One Source

By developing the Business Information Warehouse for R/3, SAP is breaking new ground in the data warehouse market. SAP has funneled its many years of experience with information systems for financials, logistics, human resources and management into this development. This know-how has been wedded with modern technology to create the Business Information Warehouse, which supplements the R/3 System as a Business Component in its own right: application solutions and a data warehouse from one source.

The Business Information Warehouse: an Enterprise-Wide Information Hub

The Business Information Warehouse derives its strength from a combination of top-flight business know-how and advanced data warehouse technology. It is an invaluable information hub for enterprise-wide use, at all hierarchical levels. From office workers to top executives, every one of a company's employees enjoys access to comprehensive, flexible and powerful queries, evaluations and analyses able to meet their particular needs. The data views the Warehouse provides are not restricted to individual areas of business activity, instead embracing company-wide issues and contexts and also looking at how they have developed over time. These far-ranging information views are ensured by preconfiguring the data warehouse server for core areas and processes. In conjunction with tailored-to-match analysis tools and automated data extraction and loading methods, this accounts for the outstanding performance of the Business Information Warehouse. The practical benefits it confers are enhanced by the integration of OLAP technologies that let you perform multidimensional analyses from different business standpoints.

Custom-Tailored to R/3

The SAP Business Information Warehouse is a data warehouse solution tailored to R/3. Embracing powerful components for data collection, use and maintenance, it meets all the requirements for ready-to-go warehousing:

- ❑ A **Business Information Warehouse Server with integrated OLAP engine** for multidimensional data views, preconfigured with business information models that are derived from R/3 and expandable to meet changing needs.
- ❑ An active **Meta Data Repository** that documents and controls the entire data warehouse environment.
- ❑ The “**Business Explorer**”, a user component based on **Excel and Internet technologies** and integrating advanced analysis tools and prefabricated report libraries for a fast range of reporting areas and purposes.
- ❑ **Automated data extraction and loading methods** for supplying the Warehouse from R/3 applications, R/2 solutions, or any other data sources.
- ❑ A easy-to-use **Administrator Workbench** for implementation and maintenance, as well as for customer-specific extensions of the data warehouse environment.
- ❑ **Open BAPIs** for linking external data sources and analysis tools.

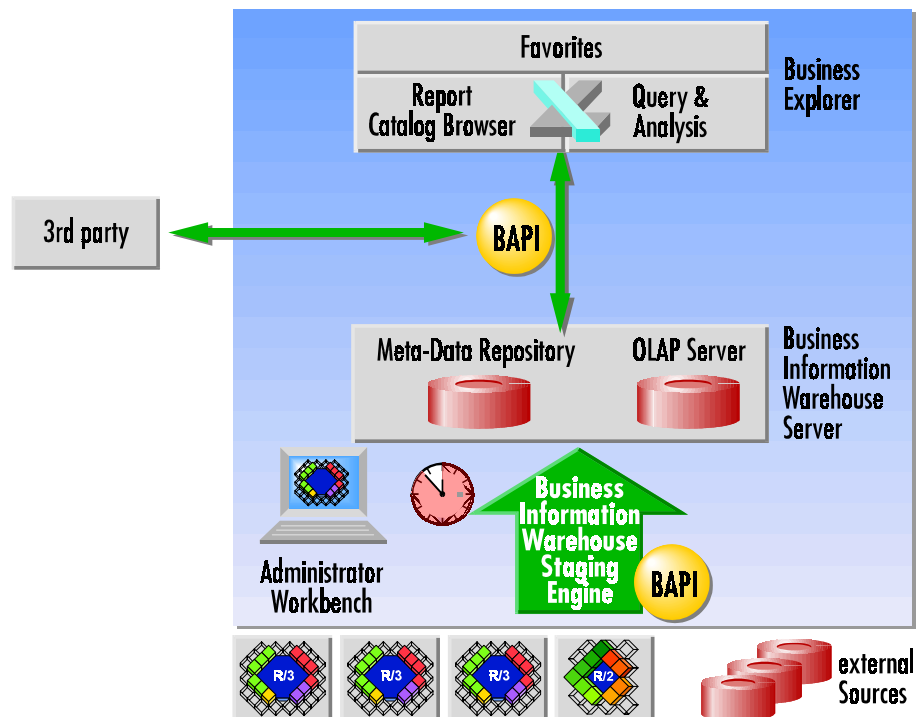


Fig. 1: Business Information Warehouse Components

Predefined Information Models Speed Implementation

SAP's Business Information Warehouse raises information use into a new realm of quality. A major role is played here by predefined business information models for different groups of users. These models reflect the accumulated experience from many thousands of R/3 installations. Examples include: market segment analyses, financial overviews, profitability analyses, stock inventory analyses, and corporate indicator systems.

As required, the models can be fine-tuned for specific companies and extended for individual customers. Their immediate availability considerably accelerates implementation of the Business Information Warehouse. Since these information models are tailored to your business processes, they smoothly extract, collect, transform, and aggregate information from financials and controlling, production and logistics, marketing, sales and distribution, human resources, and corporate management before it enters the data warehouse.

A Single Meta-Database for Consistent Description of the Business Process Model

The SAP Business Information Warehouse is unique in that it seamlessly integrates R/3 applications and a data warehouse on the basis of consistent metadata. This ensures synchronization of the corporate data and business processes documented in the R/3 System with the data stored in the Warehouse: the enterprise is completely documented on a single integrated level along with all of its data and processes. The consistent Meta Data Repository supports fast implementation and increases the speed of response to changes throughout the life cycle of applications and the data warehouse: easy and continuous adjustment to changing business processes as a crucial ingredient in elevating your company's long-term competitiveness.

Surf the Data Warehouse Quickly and Easily with the Business Explorer

The Business Information Warehouse constitutes a comprehensive information base for different users in all areas of a company. Every authorized employee can use the Business Explorer to access both historical and current data in any desired combination, aggregation or level of detail: a single point of entry at all times from any location, since the possibility of accessing the Warehouse via the Internet transcends all geographical constraints. The Business Information Warehouse also supports standardized, form-based reporting and ad-hoc queries, special evaluations, and individual online analyses.

Graphical Report Catalog for an Individual Overview

When you use the Business Explorer to surf the Business Information Warehouse, a report catalog provides a convenient and simple means of opening the doors to the data. The catalog can also be consulted via the Internet or an intranet. It gives you a clearly organized overview including report previews of the available information so you can quickly locate what you need. A special search engine makes it easy to find specific reports. An integrated security system makes sure that you can only view the data you are authorized to access. Guided by the catalog, Business Explorer lets you effortlessly access spreadsheets, graphics, business analyses and reports, all displayed in Excel. User-friendly functions let you make modifications by pointing & clicking, and escort you step by step through the process of precisely defining your information needs and performing focused analyses. You can also assemble a personal collection of reports and analyses and store it as so-called favorites for direct access.

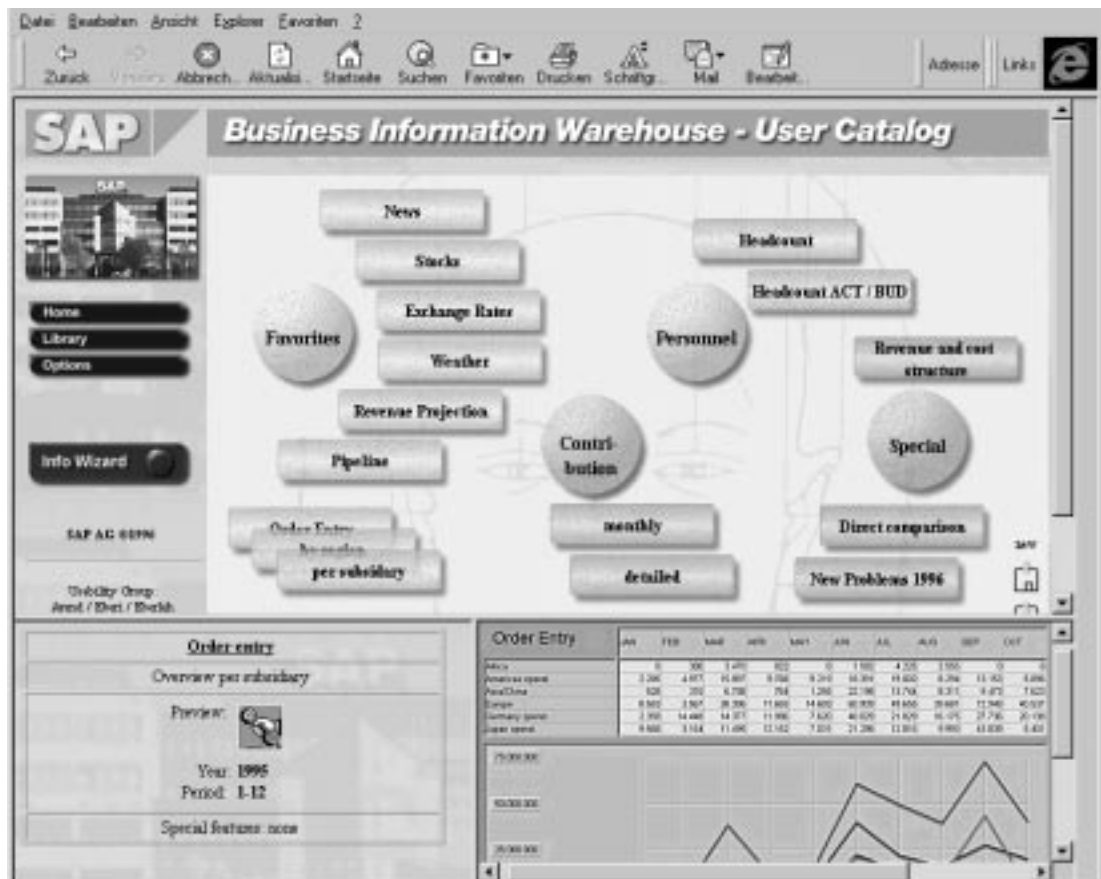
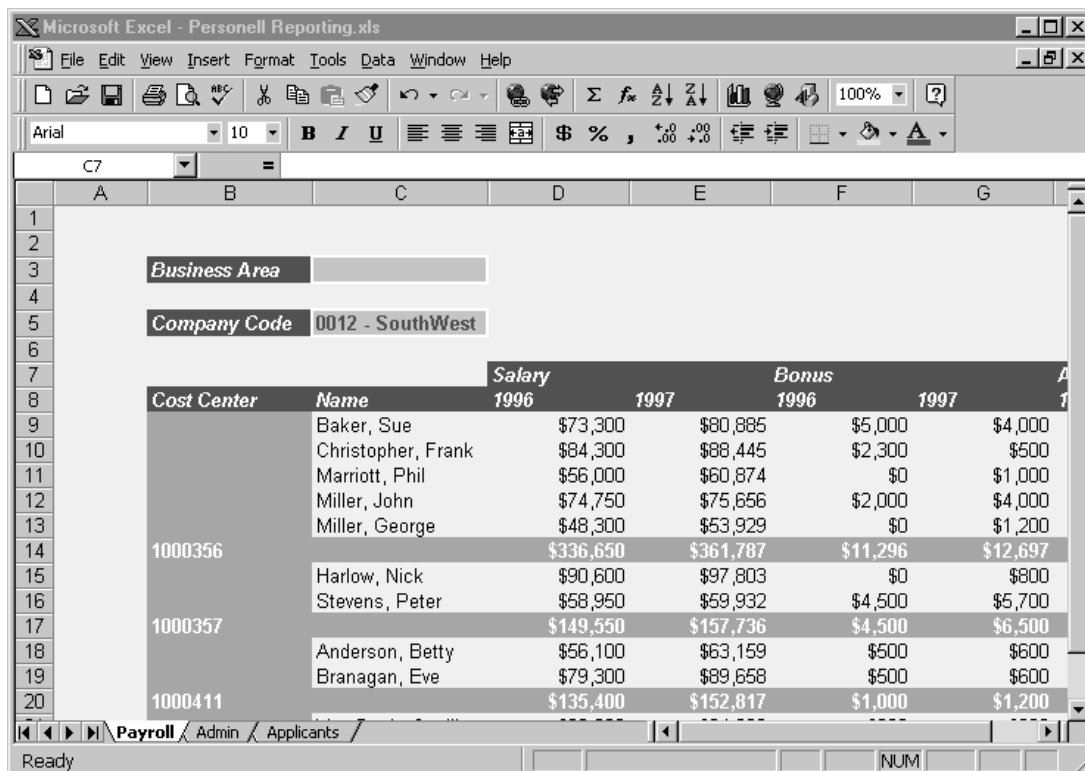


Fig. 2: Business Explorer

Multidimensional Analyses with OLAP Technologies

Before information is presented in Excel, OLAP technologies running in the background compile it from the stored data records and prepare it for viewing from many different perspectives. These appear to the user in the form of a multidimensional infocube, from which you can select and combine the information blocks you need. You can, for example, combine or divide up sales figures as you please, applying time or any other desired criteria to generate weekly or monthly views, or focus on individual products, customer groups or sales channels. Systematic analyses of buyer groups and purchasing patterns yield valuable information for systematic design of marketing measures to successfully exploit and develop specific market segments. If you want greater detail, you can take advantage of powerful tools such as “slice-and-dice” functions for flexibly “walking through” the data stored in the Warehouse. The drill-down capabilities also allow you to get to the detailed document data. The multidimensional analyses are controlled by the OLAP engine integrated in the Business Information Warehouse.



Cost Center	Name	Salary		Bonus	
		1996	1997	1996	1997
1000356	Baker, Sue	\$73,300	\$80,885	\$5,000	\$4,000
	Christopher, Frank	\$84,300	\$88,445	\$2,300	\$500
	Marriott, Phil	\$56,000	\$60,874	\$0	\$1,000
	Miller, John	\$74,750	\$75,656	\$2,000	\$4,000
	Miller, George	\$48,300	\$53,929	\$0	\$1,200
		\$336,650	\$361,787	\$11,296	\$12,697
1000357	Harlow, Nick	\$90,600	\$97,803	\$0	\$800
	Stevens, Peter	\$58,950	\$59,932	\$4,500	\$5,700
		\$149,550	\$157,736	\$4,500	\$6,500
1000411	Anderson, Betty	\$56,100	\$63,159	\$500	\$600
	Branagan, Eve	\$79,300	\$89,658	\$500	\$600
		\$135,400	\$152,817	\$1,000	\$1,200

Fig. 3: Business Information Warehouse Report in MS EXCEL

Automated Data Extraction and Loading

Predefined extraction and loading routines take care of supplying the Business Information Warehouse with data. At defined updating intervals, they automatically extract data from the corresponding transaction systems and transfer it to the Warehouse in accordance with business rules. There it is compiled at a new level of quality for different groups of users. The SAP Warehouse solution includes proven updating routines that you can also easily customize to meet your company's specific requirements. None of the data stored in the Business Information Warehouse needs to be manually checked, structured or reprocessed.

The SAP Business Information Warehouse is open for accepting data from operative R/3 applications or any other business application or external data sources, such as databases, online services, and the Internet.

The Administrator Workbench makes it easy for you to control, monitor and maintain all data extraction and loading processes.

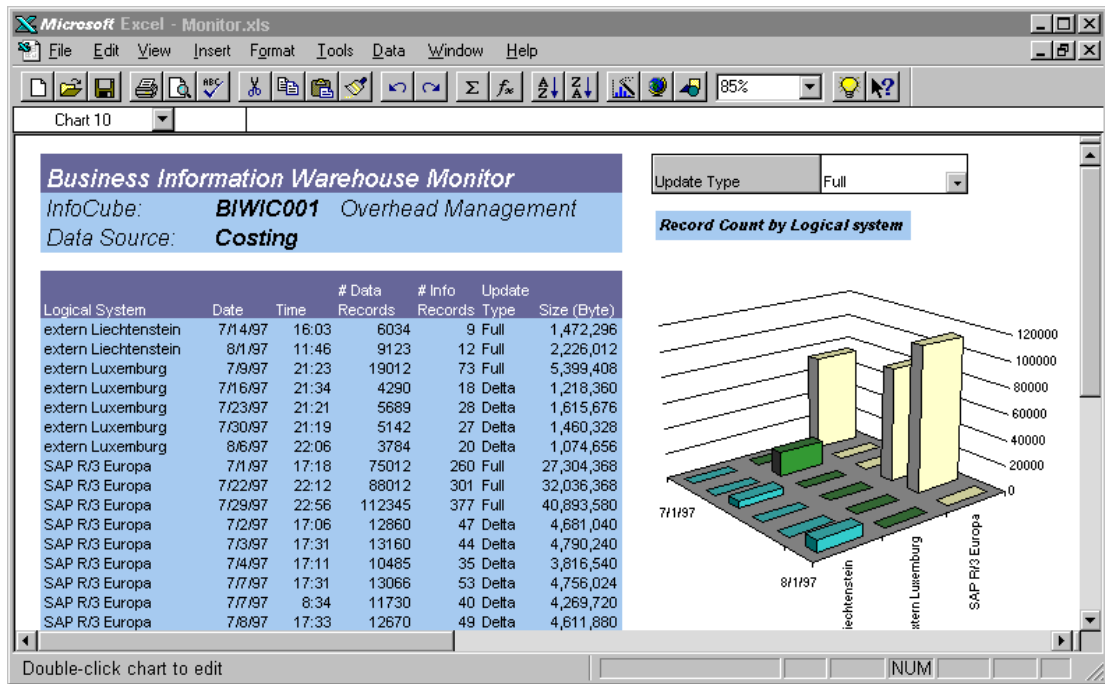


Fig. 4: Business Information Warehouse Monitor

Fast Implementation

The finely balanced set of tools and the inherent business content pave the way for fast implementation. This saves users of the SAP Business Information Warehouse from having to deploy major resources for data modeling and setting up a data warehouse environment, which in turn ensures a much faster return on investment. All functions are designed for easy use and are therefore simple and fast to learn. Because the Business Information Warehouse uses R/3 Basis technology and is integrated into SAP's Business Framework Architecture, it provides all of R/3's manifold benefits: security, integrity, scalability, high availability, interoperability, and early incorporation of advanced information technologies in a single, consistent environment. Just like the R/3 System, the Business Information Warehouse is ready to take on the year 2000 and the euro.

Secure Investments

Users of existing R/3 information systems can effortlessly migrate into the new Business Information Warehouse and expand and optimize their existing reporting environment to create a comprehensive data warehouse. The know-how of the Open Information Warehouse systems, information models and business and analysis functions have been transferred to the Business Information Warehouse, where they are available in a consistent form. The Business Explorer can be used in all environments that allow ActiveX and 32-bit computing. These now include Windows 95 and Windows NT.

The Business Information Warehouse is a separate R/3-based system with its own release cycle. Data can be extracted for it from R/3 applications of different release levels. This is implemented via BAPIs.

Persuasive Benefits

The SAP Business Information Warehouse makes a major, efficient and flexible contribution to heightening your competitiveness. It opens up a new dimension of quality in information management by bringing together data generated throughout a company and applying relevant business criteria to compile information of relevance to planning, control and decision-making processes.

The Business Information Warehouse lets you extend your competitive edge daily by tapping existing information potentials more effectively.