

# R/3<sup>®</sup> System Release 4.5 Highlights



# **GLOBAL SOLUTIONS**

**FUNCTIONAL ENHANCEMENTS**

**QUICK AND SIMPLE UPGRADE**

**ADDITIONAL PROCESSES**

**NEW COUNTRY VERSIONS**

**HR MANAGER'S DESKTOP**



# SAP R/3 Release 4.5 Highlights

It has only been a matter of months since the arrival of R/3 Release 4.0. But the world does not stop spinning, the business environment does not stop changing, and SAP does not stop extending and improving R/3.

SAP listens to what customers want and need, and takes note of their suggestions and wishes. This leads to a new release every year, and 1998 is no exception. The result is R/3 Release 4.5 - well ahead of schedule, and with enhancements that will help our customers squeeze even more productivity out of their information technology.

Release 4.5 is not only a good vintage, it has matured much faster than many rival products. And it will not be difficult to implement. Upgrading to Release 4.5 will be smooth, and user-friendly. Very much like Release 4.0, in fact. Although rich in new functions and processes, Release 4.0 implementation was far easier and simpler than many of our customers had perhaps expected.

Release 4.5 does not entail migration to an entirely different system, or a major shift in emphasis. But it does offer you many new and improved features in a wide variety of areas. This brochure explains just what those improvements are, and what you stand to gain.

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# Human Resources - Highlights



## Personnel Development

### Appraisal System

The new appraisal system enables you to plan, perform and analyze personnel appraisals and other types of appraisals. A variety of templates are available to support the appraisal process in a business context by using, for example:

- Personnel appraisal
- 360° feedback appraisal
- Formal references
- Surveys.

### Development Plans

This new component allows you to create both general and highly tailored training programs. It can be used to effectively design and manage short-term and long-term human resources development plans.

## Compensation Management

Job pricing functionality allows you to generate defaults for salary structures based on results from salary surveys and job valuations. Multi-dimensional calculation rules (matrix calculation) enable you to adjust compensation payments according to individual requirements.

## SAP HR Manager's Desktop

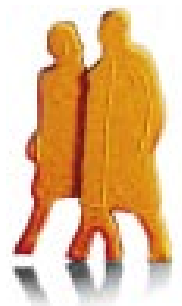
The Manager's Desktop is a sophisticated yet user-friendly tool that empowers managers to locate and analyze the data they need for effective decision-making.

It includes the following functions:

- Views of the organizational structure
- Display of employee information
- Support for re-organizational measures
- Automatic routing of all ESS (Employee Self-Service) processes requiring managerial approval

## Payroll Accounting

In contrast to periodic payroll accounting, off-cycle payroll activities can be run at any time. This makes it possible, for example, to pay a bonus on any chosen date, to immediately correct payroll accounting mistakes or to take account of future employee absence.



## *SAP Employee Self-Service*

SAP Employee Self-Service is a set of easy-to-use applications that enables non-SAP GUI users to enter and change data in the R/3 System. Release 4.5 also includes country-specific and language-dependent ESS solutions as Standard SAP Internet Application Components.

## *Global SAP HR Solution*

The following new country versions have been added to standard HR functionality: Argentina, Brazil, Hong Kong, Ireland, Italy, Mexico, Norway, Philippines, Portugal, Sweden, Taiwan, Thailand, and Venezuela.



# Logistics - Highlights



## Service Management

### Management of the Installed Base

With Release 4.5, Installed Base Management can be used to define the serviceable items installed at the customer site. The items in this installed base can be serialized materials, unserialized materials or items of equipment. It is also possible to define validity periods for various versions of the installed items (for example, as-built, as-modified).

### Repairs Processing

Repairs processing covers a range of functions specifically designed to support the service and repairs process, for example, receiving serviceable items back from the customer, repairing them, returning them, and billing the customer.

## Plant Maintenance

### Notification Call from Maintenance Plan Scheduling

Release 4.5 allows you to use maintenance plan scheduling to generate inspection or maintenance notifications, orders and service entry sheets. These inspection or maintenance notifications can be employed to trigger preventive maintenance.



## Manufacturing

### High Volume Order Management

High Volume Order Management provides a uniform framework for carrying out mass production functions.

The following functions are available:

- Converting planned orders into production orders
- Executing availability checks for planned orders and production orders
- Releasing production orders
- Printing production orders (in particular, selective printing of documents for individual components or operations)
- Setting production orders to 'technically complete'.

### Engineering Workbench

The Engineering Workbench is an environment for maintaining product structures and routing operations whose needs exceed the existing framework of bills of material (BOM) and routings.



## Project System

### Milestone Trend Analysis

Milestone trend analysis is used to study the actual progress of a project and to compare it with the planned milestones, and to display deviations from the planned schedule.

### Project Cost Forecast

Available project information can be used to determine how costs are likely to develop. The person responsible for the project can use this as a basis for a realistic cost forecast.

### Project Key Figures in R/3 EIS

Selected key figures from the Project System are now available in the R/3 Executive Information System (R/3 EIS). This means you can now effectively integrate project key figures into accounting in your area of responsibility.

## Configuration

### Variant Configuration

#### *User interface*

The enhanced user interface for product configuration offers a number of significant benefits, particularly for users handling complex products with many attributes. It also supports interactive configuration and manual changes on several BOM levels.

#### *New configurable objects*

- Service Specification Template, a new configurable feature for purchasing specified services.
- Task maintenance list, a configurable function for describing the tasks needed to maintain or upgrade equipment.

#### *Application Programming Interfaces*

The new Application Programming Interfaces can be used to create your own user interface (e.g. in a CAD system) for variant configuration.

### Sales Configuration Engine

The Sales Configuration Engine (SCE) allows you to use the R/3 variant configuration on a notebook without connecting to the R/3 System. Release 4.5 also provides a simple way of grouping together the master data you require to form a knowledge base. You can then make this knowledge base available to other SCE users either by downloading it or by distributing it with Application Link Enabling (ALE). In addition, you can save the master data in a local database and use the SCE to configure complex products offline.



## Environmental Health & Safety (EH&S)

### Occupational Health

To enable employers to fulfill statutory requirements more efficiently, the R/3 EH&S application component has been extended to include Occupational Health functionality.

### Enhanced Dangerous Goods Management

Release 4.5 provides enhanced Dangerous Goods Management, including the following functions:

- Dangerous goods classification using legal data
- Completion of the dangerous goods material master
- Integration of dangerous goods checks into Transportation functionality
- Integration of dangerous goods data into Electronic Data Interchange (EDI)



# Financials - Highlights

## Enterprise Controlling

### Business Planning

The new Business Planning component enables you to produce an enterprise-wide, uniform business plan at a high level of aggregation. By deliberately avoiding the degree of detail given in the R/3 transaction systems, the Business Planning component focuses on the smooth and rapid generation of a business plan which is consistent across group and enterprise levels.

### Proportional Consolidation

In Release 4.5, the Consolidation component adds the proportional method of consolidation to existing functionality for purchase and equity methods. Mid-year increases or reductions in ownership shares are supported by all corresponding functions (inter-unit elimination, elimination of inter-unit profit or loss, reclassification, consolidation of investments).

### Interactive Excel in Consolidation

Release 4.5 introduces the new Interactive Excel function to the Consolidation component. This links data in Consolidation with Microsoft Excel, enabling you to create reports and data entry

forms in this popular spreadsheet program, and format them using Excel's wide range of formatting capabilities. A connection between Excel and the source database allows reports to be automatically refreshed whenever they are changed.

### Decentralized Profit Center Accounting

Application Link Enabling (ALE) scenarios have been implemented in Profit Center Accounting (PCA) for decentralization of EC-PCA.

### Average Balance Ledger for Profit Center Accounting

The Average Balance Ledger lets you update average inventory balances to take account of current data. The Average Balance Ledger is a parallel ledger that stores average balances by period in summarized form. You can choose whether to calculate the average balance based on the posting date or the value date

### Drilldown Reporting in Profit Center Accounting

In addition to the existing Report Writer or Report Painter reports, you can now define and run drill-down reports in Profit Center Accounting.

## Financial Accounting

### Individual Value Adjustment and Discount

As part of balance sheet preparation, open items in Accounts Receivable and Accounts Payable are valued on the key date. In addition to foreign currency valuation, you can now realize discount for long-term receivables and perform value adjustment of unsecured receivables (based on country provision for contingent losses or arrears

in payment history). Receivables that are adjusted then serve as the basis for later sorted listing and regrouping of open items for the balance sheet.

### New Country Versions

Release 4.5 provides new country versions for Columbia, Korea, Poland, the Slovak Republic and Venezuela.

### Creating Assets from Purchase Orders

This new function lets you create one or more assets directly during the purchase order process.

### Information System for Appropriation Requests

Appropriation request functions were included for the first time in R/3 in Release 4.0. Up to now, you could generate Investment Management reports on appropriation requests only when the appropriation request was assigned to an investment program position. In Release 4.5, this restriction no longer applies.

## Travel Management

### Travel Planning

The Travel Planning component provides effective support for planning and booking business trips and reservations. Travel services can be booked directly in Travel Planning via the AMADEUS Global Distribution System.

### New Country Versions

Release 4.5 includes new country versions of the Travel Accounting component for Canada, Mexico and Spain.



## Treasury

### Credit Management

Initial functions are now available for managing credit within the Treasury Management component. This allows customers to manage the credit they grant and the credit they are given using a link to the general ledger in Financial Accounting.

### Link between Treasury Information System and the Executive Information System

The Treasury Information System (TIS), which operates independently of other business areas, previously concentrated on finance. The new link between the TIS and the Executive Information System means that management reporting can now be performed for the entire organization.

### Loans Taken

In addition to the existing support for managing loans given, initial functions are now available in the Treasury Loans component for managing loans taken.

### Releasing Treasury Transactions – Workflow

A treasury transaction usually goes through a series of processing steps requiring individual approval (release). Since all the release procedures are approval or control procedures within a given organizational framework, SAP has now developed a treasury transaction release procedure that is supported by workflow.

## Controlling

### Enhanced Integration of Activity-Based Costing and Activity Quantity Calculation with Profitability Analysis

The integration of Overhead Cost Controlling within the Profitability Analysis component has been enhanced to include the following allocation techniques:

- Indirect allocation of business process and cost center activity quantities with tracing factors
- Calculation of process utilization by market segments and source appropriate posting of the relevant process quantities and costs.

### Multi-Level Actual Costing for Materials

The goal of multi-level actual costing is to assign (for each period) the difference between the actual cost and the valuation price of a material

to the respective inventories and consumption over multiple manufacturing levels. With multi-level actual costing, you can now carry the values in multiple currencies. Conversion takes place at historical exchange rates.

### Profitability Analysis Based on Transfer Prices

In addition to the existing legal viewpoint in the Profitability Analysis component, Release 4.5 now offers you extended analysis features for profit centers. This means that you can concurrently analyze the profitability of your products from the legal viewpoint and from the viewpoint of the individual profit centers.

### Sample Operating Concerns

The new release makes it possible for you to copy fully customized operating concerns as templates for your own operating concern. These templates will include general examples for use in any industry as well as industry-specific versions.



# Industry Solutions - Highlights

## SAP Automotive

### Material Requirements Planning Area

Release 4.5 includes the MRP (Material Requirements Planning) area, which provides even greater clarity and a more refined method of MRP within a plant. The MRP area represents an

organizational unit, for which Materials Requirements Planning can be performed individually, and the results of the planning run displayed for each MRP area.

An MRP area can include one or several storage locations of a plant or a subcontractor for the materials planning of the parts to be provided. You can also assign a material to multiple MRP areas.

### Grouped JIT Call

The new grouped JIT call function allows you, in addition to creating a requirements forecast from the MRP run, to create a delivery-relevant JIT call from production with reference to a scheduling agreement. The JIT call can be administered and transmitted as a separate document.

As soon as a material is required in production, you can create a grouped JIT call by setting a kanban to 'empty'. This applies both to traditional and event-driven kanban. The grouped JIT call, in contrast to the forecast and JIT delivery schedules mentioned above, is relevant for delivery.



## SAP Consumer Products

### Vendor-Managed Inventory

Vendor-Managed Inventory is a service that manufacturers offer retailers, where the manufacturer takes on the task of replenishing products at retail outlets. This strategy can be implemented only if the manufacturer has access to retailer sales figures and current stock levels. The manufacturer is able to forecast future sales and replenish the retailer's inventory more effectively. Release 4.5 now offers the corresponding functionality.

### PRICAT Outbound Processing

A vendor can use the logical message type PRICAT to transfer data on prices and catalogs for goods and services to a customer. The message can contain all vendor's products, or just announce certain changes.

### Mass Maintenance

Mass maintenance makes it easier to enter large amounts of data. To meet these requirements, SAP has developed a central tool that can be used by the various applications. The following are supported:

- Material master
- Article master
- Customer master
- Vendor master



## SAP Retail

### Cross Docking in the Distribution Center

If your organization regards the procurement of merchandise for a distribution center and the delivery of this merchandise to a customer to be part of the same process, you now have the option of procuring the exact quantity of goods that you plan to sell within a specified period. If you use the cross-docking method, merchandise is taken from the incoming truck (or other means of transport) directly to the outgoing means of transport. The goods are not unpacked, repacked or placed in stock.

### Allocation of Apparel Stock

Functional enhancements for the fashion industry include value and quota scales, which the system can use to automatically allocate appropriate quantities of a generic article to each of its variants. This function is of particular relevance to the apparel and footwear industry.

### Integration of Space Management

SAP Retail now provides an interface for the integration of third-party software packages for planning and optimizing shelf space more effectively. The interface handles business process integration and data interchange.

# Technology - Highlights

## SAP Business Framework

### Application Link Enabling (ALE)

As a key enabling technology within the SAP Business Framework, ALE has been extended to support the integration of an increasing number of business components. Additionally, the ALE Distribution Model Viewer is shipped as a VISIO-add in to provide greater ease-of-use when browsing the distribution model.

### BAPI

Release 4.5 contains about 1000 BAPIs, which represent methods of more than 250 Business Objects. These BAPIs can be invoked from both COM/DCOM and CORBA. Moreover, development environments such as the Visual Studio of Microsoft, the Access Builder for R/3 from IBM, and the Delphi/Connect product from Inprise are "BAPI powered" as they ship the BAPI and Business Object definitions with their products. Finally, the Interface Adviser for Release 4.5 explains how to use the BAPIs in integration scenarios with non-SAP software.

### Central User Management

The user management within the SAP Business Framework is simplified: The system admin works using one single business component that contains all user master records. The data is automatically distributed among all business components included in the installation. In order to allow different roles of an end-user in the different components, authorization profiles and activity groups are defined component-dependently in one central component.

## SAP Business Workflow

Release 4.5 allows the monitoring of business processes using a graphical representation of the process. Companies gain more transparency with respect to the current progress of a process, resulting in more accurate and reliable information for employees, customers and business partners.

### Generic Object Services

With Release 4.0, SAP introduces the Generic Object Services to better support ad hoc work processes. In Release 4.5 SAP offers a broad range of services which are instantly available for business objects within R/3. These services include the launch of workflows associated with a business object, the sending of a business object to individual persons or organizational units, and the ability to link external objects such as desktop files (e.g. Excel, Word), faxes, or URLs to SAP Business Objects.

## R/3 for Everyone

### Internet-enabling the Supply Chain

Starting in 1996, SAP has been shipping solutions for electronic commerce in the area of inter-company communications (extranets), intranets within a company, or the communication of companies with consumers (Internet). With Release 4.5 SAP's Internet solutions consist of more than 85 Internet Application Components. These components offer complete supply chain solutions, e.g. for the purchasing sector (Procurement Chain Management from the creation of the purchase requisition to the approval of the invoice) or for online-stores (from catalog search to the tracking of a shipment). SAP's offer includes both the capability to connect people to business processes

over the Web and the capability to directly connect business systems over the Web. SAP's out-of-the-box solutions are secure, reliable, scalable and enable new user communities to work in sync – even if the people that participate have received no or very little training.

### Comprehensive use of ActiveX Controls

The user interface SAPGUI for the trained user also is significantly easier-to-use with R/3 Release 4.5. Through the comprehensive use of ActiveX Control technology, it is much easier to visualize the results of business processes. The new ActiveX Controls that are shipping with Release 4.5 include a whole variety of graphics controls for networks, portfolios or planning boards as well as controls for text editing, improved help features, and tighter desktop office integration. The handling of SAPscript – printing via forms, and text management in R/3 – is considerably facilitated through controls as well as the presentation of images and HTML pages.

### Self-Upgrading User Interface

In order to further reduce the cost of ownership, SAP has improved the way the user interface is updated on the user's desktops. With Release 4.5, the user interface is upgrading itself – without the need of human interaction – as it communicates with a central server and automatically detects that a software upgrade of the user interface on the desktop is required.

### Extended Microsoft Outlook Support

Another way of including new user communities into R/3 business processes is the use of electronic forms. Replacing a lot of the paper work, electronic form save companies significant

amounts of money. With Release 3.1, SAP has shipped the SAPforms technology to support electronic forms for Visual Basic. With Release 4.5 support for Microsoft Outlook forms has been added. With Release 4.5, SAP also added the synchronization of the R/3 employee calendar with the Microsoft Outlook calendar. Now, SAPoffice users can not only send and receive mail using the Microsoft Outlook front-end but also are able to maintain their calendar with Microsoft Outlook.

## Technology Infrastructure News

### ABAP Objects

As part of SAP's long-term commitment to object technology, Release 4.5 will contain further object-oriented enhancements of the ABAP programming language. With classes, object interfaces and business events, ABAP programmers leverage the benefits of object-orientation resulting in improvements in the area of reusability, maintenance, and quality of code. With Release 4.5 ABAP Objects also comes with a new class builder tool that supports the navigation, cross referencing and test support within object hierarchies to increase the developers productivity.

### Digital Signatures

The digital signature is based on cryptographical algorithms that make it possible to "sign" documents to achieve a higher level of security. This is especially useful when an explicit identity or proof of obligation, e.g. in paperless contracts, is needed.

### Internet-Enabled SAP ArchiveLink

Documents can be archived via the Internet and displayed using a Web browser. For this purpose,

SAP ArchiveLink has an extended interface that now also supports HTTP, i.e. the Hyper Text Transfer Protocol.

### Incremental Data Conversion

Reducing the downtime of R/3 upgrades, Release 4.5 enables the incremental conversion of data from one R/3 release to another, during the productive processing of R/3. This approach significantly reduces downtime of the system, giving SAP customers more flexibility and agility.

## Supported Partner Technologies

### IBM

R/3 Release 4.5 running on AS/400 platforms enjoys improved interoperability with respect to sending faxes using Facsimile/400, exchanging documents on the basis of the X.400 standard, and using AnyMail/400 to send and receive electronic mails.

### Informix

The parallel operation of update statistics for the cost-based optimizer in SAP's database tool SAPDBA significantly reduces run times on multi-processor platforms using the Informix database.

### Microsoft

R/3 Release 4.5 includes comprehensive support of Microsoft NT Release 5.0. For eased installation and upgrades, both R/3 application server software and SAP's Windows-based user interface are installed using the Microsoft Installer (MSI). Moreover, R/3 uses Microsoft NT as a trusted platform, which results in a single sign-on to the desktop computer, avoiding an explicit R/3 logon. Additionally, SAP's Computer Center Management System (CCMS) information is included



into the Microsoft Management Console (MMC), enabling the administration of R/3 using a MMC Snap-In. Finally, R/3 Release 4.5 offers zero administration memory management under Windows NT. Eliminating the need to manually configure or adjust memory requirements, even hardware changes such as memory upgrades are detected, and R/3 system parameters are adjusted automatically.

### Oracle

The next version of SAPDBA - SAP's extended database administration tool - will support incremental backup of the Oracle 8 database. This new option enhances the set of alternative backup strategies a customer can apply. Incremental backup support will be based on integration of SAPDBA with RMAN, the new Oracle recovery manager tool.



# AcceleratedSAP - Highlights

## AcceleratedSAP cuts time and cost of R/3 implementation and continuous change

AcceleratedSAP (ASAP) combines a proven methodology with powerful tools, services and quality assurance to optimize R/3 implementations. ASAP is also prepared to support the entire life cycle, for instance with ASAP for Upgrades. It assists project management, the business process consultants and technical project management. The main benefit is that ASAP specifically addresses rapid R/3 implementations, relies on consultants' experience and enables the project team to always see the full picture of what happens throughout the project along the Roadmap.

### Elements of ASAP: Roadmap, Tool and Services

The ASAP Roadmap is a five-step project plan with detailed descriptions of what, why and how certain activities are performed. The time-savers along the Roadmap include examples, checklists, templates, questionnaires and technical guides which make sure customers do not have to "reinvent the wheel" of implementation. It is a valuable repository of information and is used in every implementation. The technical guides address subjects such as interfaces, data conversion, authorization and even printer setup.

ASAP includes a number of tools. A key role is played by SAP's user-friendly configurator, the Business Engineer. This high-caliber software tool allows you to configure your system to order, quickly and efficiently, and to adapt it on the fly as new needs arise. A variety of industry-specific templates speed up configuration still further. ASAP is also backed by a wide range of services. You will be given expert advice from initial planning through to successful implementation and beyond. Services include consulting, education, and support. ASAP positions service products to standardize certain consulting and support tasks.

### New technical accelerators in ASAP

The **Interface Adviser** is the integration guide that enables customers to design and implement interfaces between SAP and non-SAP systems in a way easier and faster than ever before. Featuring an easy-to-use Web front-end, the Interface Adviser provides all the information needed to implement business processes that span SAP and non-SAP components. All technical interfaces and all BAPIs offered with R/3 4.5 are explained. The Interface Adviser for R/3 4.5 can be used both stand alone and in conjunction with an R/3 system.

**Ready-to-Run R/3** preinstalls the R/3 System on the customer's hardware platform of choice and is appropriate for projects with 15 to 200 users. It is used to save technical support and consulting days needed to install R/3 on site.

The **Legacy System Migration Workbench** allows users to migrate from any legacy system to R/3, requiring less programmer expertise. It ensures consistency, flexibility and reusability of all migration programs.

AcceleratedSAP is your fast track to cost-effective, tailored R/3 implementation - for a better return on investment throughout the entire life cycle.





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