Implementing SAP using ASAP

Introduction

Enterprise application software has to cover a broad spectrum of functionality, yet be configured flexibly enough to meet specific requirements, which can vary enormously. SAP's answers to this challenge are AcceleratedSAP and the R/3 Business Engineer, providing a comprehensive solution for implementing R/3 quickly, easily, and according to your own needs even during productive operation.

Born out of the need to cost effectively configure R/3 to order, AcceleratedSAP and the Business R/3 Engineer support custom configuration of R/3. You can tailor the R/3 components, functions and organizational structures to your needs, hiding and/or deactivating those functions that are not required.

Fig. 1: The R/3 Business Engineer Complements ASAP

AcceleratedSAP (ASAP) is SAP's standard implementation methodology. It contains the Roadmap, a step-by-step guide that incorporates experience from many years of implementing R/3. Along with that, AcceleratedSAP contains a multitude of tools, accelerators and useful information to assist all team members in implementing R/3. Quality checks are incorporated at the end of each phase to easily monitor deliverables and critical success factors. ASAP is delivered as a PC-based package, so that - if required - an implementation project can begin prior to having an R/3 System installed.

The **R/3 Business Engineer** contains a set of configuration and implementation tools which enable you or your consultants to define and configure R/3 and also to adapt an existing configuration to new needs or changed circumstances. The Business Engineer is resident to R/3.

So that its customers can implement R/3 as quickly as possible, SAP has standardized the implementation procedure, simplified the way functions are presented and reduced the technical complexity of implementation.

AcceleratedSAP and the Business Engineer help you configure R/3 according to your own needs using proven, industry-specific business scenarios and processes. Whether implementing new processes in your enterprise or restructuring old ones, R/3 can release the full potential of change for you. AcceleratedSAP and the Business Engineer help you determine which of R/3's proven processes are most suited to your business, and then help you configure to meet your specific needs. The benefit is obvious: Restructuring enterprise processes in the R/3 System leads to a rapid and efficient production startup, meaning a faster return on investment.

By simplifying configuration, ASAP and the Business Engineer make the power of R/3 more accessible, helping companies to lower their dependence on expensive specialists or outside consultants. The user-friendliness of ASAP and the Business Engineer make them particularly suitable for the following groups:

- Business professionals who need to discuss, prototype and design their business blueprint (enterprise model)
- IS departments of large enterprises who need to customize R/3 applications more efficiently and more rapidly
- Small and medium-sized companies previously wary of implementing R/3 because of the perceived scale of such projects
- Consultants and SAP partners looking for an efficient way of offering their customers configure-to-order or wishing to develop R/3-based solutions for niche markets

Together, AcceleratedSAP and the Business Engineer empower you to manage cost, time and quality without compromising on implementation requirements. Some of the features offered are:

θ Reduced implementation times and faster return on investment through structured planning and preconfiguration

- Intuitive understanding of the wide range of functions offered by R/3

- Process optimization using proven scenarios, processes and value chains, illustrating clearly the software's capabilities and offering practical help when you configure the R/3 System.

θ High quality installations through comprehensive procedural guidelines

θ Optimizing business processes using SAP Business Workflow, via process monitoring and automation of procedures

- Continuous, dynamic adjustment and optimization of R/3 applications

- The capability to copy configured areas, for example, by transferring existing settings to new organizational units.

AcceleratedSAP and the Business Engineer are designed for openness and new platforms, using HTML-based documentation. Compatibility with many third-party modeling tools and software packages, for example, Microsoft Excel, is ensured.

Available Tools

Embarking on an implementation project requires a lot of careful thought beforehand. You need to think about what you want to accomplish, the optimum sequence, and the business cases that are best suited to your needs. But SAP has already done a lot of the thinking for you and packaged its findings in the following tools. They are then described in more detail in the following chapters organized according to the corresponding AcceleratedSAP phases.

1. **AcceleratedSAP** (ASAP): A comprehensive solution for the introduction of the R/3 System in your enterprise. ASAP and most of its tools can be used independently of an R/3 installation.

   The tools available for AcceleratedSAP are:

- The **Project Estimator**, an internal SAP tool which enables SAP consultants to accurately gauge the required resources, the costs and the time frame of implementation. The Project Estimator takes into account the project scope and several project and risk factors.
- The **Concept Check Tool**, a tool enabling you to carry out quality checks on the project preparation, technical infrastructure and R/3 configuration settings. This is done mainly during the first two implementation phases of the R/3 project. In this way you are alerted to potential data volume and configuration conflicts that could lead to performance issues if not addressed.
- The **Implementation Assistant**: The ASAP navigation tool that accompanies you through the five phases of implementation down to the task level. It includes a description and a detailed "how-to" for each task in the Roadmap. Along with that, many tools, templates and documents are hyperlinked to the task. The Implementation Assistant contains the following elements:

- **ASAP Implementation Roadmap**

  and **Project Plan**. The *Roadmap* contains the five phases, from which you can drill down into work packages, activities and tasks. The *Project Plan* contains three components, a budget plan, a resource plan and a work plan. These are explained in more detail in the next chapter.

    The ASAP Roadmap is the successor of the R/3-based Procedure Model, which was used until Rel. 3.1 in R/3 implementation projects.

- **Knowledge Corner**

  , containing tips and tricks for configuration from consultants, detailed documentation on SAP's implementation services, information on technical tools, as well as simplification guidebooks and R/3 Customizing wizards.

- **Question and Answer Database (Q&Adb).**

  Using the R/3 Reference Model structure, the Q&Adb is used to assist in gathering requirements for business processes, conversions, reports, interfaces, enhancements and authorizations. The database provides useful questionnaires to help you define the process needs and also serves as a repository for all this information. Since it is a database, it allows for flexible reporting. The business requirements generated from the Q&Adb are collectively known as the **Business Blueprint**.

- **Business Process Master List**

  , to manage configuration, testing and the creation of end user documentation. The Business Process Master List is linked to pre-written Business Process Procedures (BPPs), detailled end-user documentation for R/3 transactions.

- **Issues Database**

  : supporting project management, this database supports the entering, monitoring and managing of issues that come up during the project.

1. **R/3 Business Engineer:**

   The implementation tools for the high-quality configuration of the R/3 System are:

- **R/3 Reference Model**: Comprehensive graphical process flows describing the R/3 functionality from different points of view. It contains scenarios, processes and functions, as well as components. The R/3 Reference Model can be viewed using SAP's **Business Navigator** and the **Business Navigator Web,** or using third-party modeling tools available from modeling partners.

- **Implementation Guide**

  (IMG): Used to configure all system parameters for the business processes in R/3. It contains project management functionality and a menu-driven view of all R/3 Customizing activities. Every activity can be documented in detail, and responsibilities and statuses can be assigned.

1. **Preconfigured systems:**

- **Preconfigured US and Canadian clients:** Provides a head start on baseline configuration. It includes a preconfigured US/Canadian chart of accounts, print

forms, account determination, units of measure, etc. The predefined test sequences that are included can be a starting point for integration testing.

- **Preconfigured industry systems:**

  A number of complete preconfigured clients consisting of an industry-specific model and preconfigured business processes for the needs of a particular industry in R/3 are available. For more information on preconfigured systems, see the description of Phase 2, *Business Blueprint* or the information on the IDES System in this chapter.

Continuous Business Engineering

In today's fast-moving, ever-changing business climate, companies are in a constant state of flux and their mission-critical applications must adapt and evolve at the same speed. If software cannot grow with the needs of a company, the company will quickly find itself in a straightjacket.

Furthermore, an ERP application needs to let you move forward fast, knowing that you can roll back changes without downtime.

An enterprise's organizational structure and the corresponding R/3 implementation created using the Business Engineer are not "set in concrete", they can be modified at any time. Examples of possible changes, which can be made rapidly include the following:

- Addition or removal of entities within the organization structure (for example, business units, production plants, warehouses, etc.)
- Introduction of new staff, promotion, reallocation of work tasks, and maintenance of authorization profiles

- Changes to the reporting or cost/profit center structure

- New and concurrent currencies
- Accommodation of changed legal requirements (for example, new tax rates, new employment legislation)
- Activation or deactivation of R/3 functions
- Optimization of business processes
- Support for new and multiple versions of R/3

In addition, SAP offers a range of services if you want support for some of these changes, for example, conversion services to support mergers and acquisitions. Standard Euro services are a further example of the available services.

AcceleratedSAP and R/3 Business Engineer take the hassle out of implementation procedures and change management. Modifications can be made at any time, and the compatibility of changes can be verified with other configuration decisions, thus supporting their smooth, trouble-free introduction into the productive system.

AcceleratedSAP

AcceleratedSAP is a comprehensive solution for the implementation of the R/3 System, comprising a proven methodology, tools and a range of services for the rapid implementation and ongoing optimization of R/3 installations.

The AcceleratedSAP Roadmap and accompanying Project Plan provide a standard implementation "how-to guide" that fills in the gaps of diverse methodologies and varying individual implementation skills and experiences.

The effectiveness of AcceleratedSAP has been demonstrated many times over at companies around the world. The Business Engineer plays a central role in AcceleratedSAP projects, being used for completion of configuration tasks.

Fig. XX: Breakdown of ASAP phases in the Implementation Assistant

The AcceleratedSAP Roadmap covers the different aspects and phases of an implementation. In the Roadmap, a detailed project plan is included for the five phases. The Roadmap provides a standard repeatable procedure for implementing the R/3 System, including project management, configuration of business processes, technical, testing and training aspects. The Roadmap serves as a backbone to AcceleratedSAP. It is located within the Implementation Assistant, a PC-based navigation tool that also contains the AcceleratedSAP accelerators.

The ASAP Accelerators represent a collection of descriptions, how-to's, templates and examples on all subjects relating to the implementation of the R/3 System. Some are short information texts on a particular subject, others are longer texts such as white papers. There are also a number of predefined and empty templates or forms which you can use when carrying out your implementation. The SAP Simplification Group's guidebooks are included. There are about 350 accelerators for AcceleratedSAP 4.0, and they can be accessed from an alphabetical list, as well as being linked to the individual roadmap How-to's.

There are four levels to the roadmap – phase, work package, activity, task. As you dig deeper into the levels, you will find more detailed information, from an overview description at the phase level down to a "how-to" procedure, role assignment, triggers, and tips and tricks.

It is essential that you create a project plan when starting your ASAP implementation project. Project plans have three parts:

- The **Budget Plan** contains the projected costs by month, against the actual costs and calculates the variance.
- The **Resource Plan** contains the resources assigned to the R/3 implementation. It displays the planned and actual number of workdays per month, as well as the variance between the two. It also contains a cumulative planned hours work sheet.
- The **Work Plan** contains a detailed set of phases, work packages, activities, and tasks from the AcceleratedSAP Roadmap. This information is organized in a project management planning tool (MS-Project or Excel spreadsheet). A Gantt Chart is contained within this work plan to view schedules, dependencies and resources in MS-Project.

Three sample project plans are included for a six-month duration, a nine-month duration, and an upgrade project plan. If the Project Estimator is used during the sales cycle and Project Preparation Phase, your individual project plan is generated automatically, taking into consideration company-specific risk factors. The project plan makes sure that nothing is forgotten and that all activities can be tracked and managed. This means, for instance, that the planning for data transfer and the development and testing of interfaces is already included in the project plan.

It is now possible to implement more than one ASAP project at a time. During installation, Rel. 4.0 of ASAP asks you to specify a project name that will apply to the files being installed. In a multi-project environment a new Project Selector icon on your desktop allows you to set the active project, remove projects and review file locations.

You can select installed components such as the Implementation Assistant and Q&Adb in the respective projects as required. Each project is completely separate from the others, so in fact projects installed on the same server could be at different update levels.

AcceleratedSAP is a complete implementation solution. This means that in addition to the Roadmap, the AcceleratedSAP solution contains numerous tools and also references SAP education and services to ensure maximum time savings and a high quality implementation.

AcceleratedSAP uses the Business Engineer implementation tools at all relevant steps. In the figure below, for example, the conceptual design is based on the R/3 Reference Model in Phase 2 (Business Blueprint), whereas the Implementation Guide is accessed from ASAP Phase 3 (Realization).

Fig. 2: AcceleratedSAP Implementation Roadmap and R/3 Business Engineer

Service and Support

ASAP leverages SAP's service and support offering, that is, all the services relating to the SAP R/3 environment. EarlyWatch® Services, concept reviews, and GoingLive™ checks are just part of the service palette which ensure total quality and let you effectively tune your R/3 System. At appropriate steps in the Roadmap, service products are mentioned and decision support is provided to determine whether you need a particular service. For example, if you have a high volume of transactions, certain tuning services can assist you in optimizing system performance.

Crucial to a fast and cost-effective R/3 implementation are well-trained project teams and highly competent consultants. SAP's innovative R/3 Info Database (InfoDB) ensures that customer and partner employees involved in implementing, servicing and using R/3 have all the qualifications they need. The InfoDB refers to a new training concept based on a new curriculum, which also includes multimedia courses.

- Level 1 courses provide an overview of the R/3 environment.
- Level 2 courses introduce you to fundamental business processes.
- Level 3 courses focus on providing detailed information.

Organizational Change Management

The positive motivation of employees is a key factor in ensuring a successful implementation project. However, most organizations know, or will at least assume that the R/3 implementation will trigger wider changes in the organization. Left unmanaged, these expected impacts could be viewed negatively. Therefore, any change management program must minimize the implementation risks, acccelerate the implementation process, and align SAP with the customer's organization.

ASAP's Change Management is done via a *risk assessment tool*, by which assessments carried out will help a customer's team deal with issues of credibility, organizational impact, and individual impact of R/3 implementation. Implementing change management procedures involves accelerating the implementation by means such as a matrix that defines the degree to which jobs and responsibilities will be changed after R/3 implementation. The other aspect is to work with executive sponsors to redesign the organization's structure or reporting relationships, for example. The ASAP change management methodology enables you to review and revise the types and sequencing of change tasks, change activities, change packages and change accelerators.

- A change task is a specific job or function to be completed by the change team.
- Two or more change tasks roll up into a change activity.
- A change package is a collection of change activities.
- Change accelerators are the tools and/or materials that speed up the team's implementation of a processs, activity or task.

Knowledge Corner

The Knowledge Corner contains alphabetized information on all aspects of AcceleratedSAP as well as a lot of tips and tricks for configuration. The information provided here is very helpful during requirements gathering and configuration. The goals of the Knowledge Corner are:

- To provide application consultants with detailed information and alternatives to configure and understand specific functionality within the R/3 System.
- To provide detailed information about peripheral activities, such as support services and access to hotline activity.
- To provide tips and tricks on R/3 implementation activities such as data conversion, authorization management, and forms development.

Some of the newer elements found in the Knowledge Corner are:

- A link to the **R/3 Interface Adviser**, which provides a central pool of information to help you design and implement permanent interfaces between SAP R/3 components and non-SAP systems.
- The **R/3 Structure Modeler**, which lets you graphically visualize the R/3 System organizational structures of your enterprise using the Structure Modeler Visio® template. Please note, you must be a licensed Visio® user to use this Accelerator.
- The **Report Navigator,** which provides a directory of more than 2,000 operational reports available in standard R/3. The Operational Reports in R/3 help you pull and analyze critical transactional information regarding your business. You can use the R/3 Report Navigator to select the report that is optimal for the information you want to retrieve about your business transactions.

Available Languages

Primary components of AcceleratedSAP are available in German and English, as well as Spanish, French and Portuguese.

Accelerated Quality Review

SAP's Accelerated Quality Review provides an independent and objective management review of your R/3 implementation project and identifies any risks to the project goals. This service is standard in all TeamSAP projects. Among others, the benefits are early recognition of potential risk areas, improved adherence to project schedules, lower cost, and faster implementation times.

Fig. 7: Checking and quality tools around ASAP

The Quality Review program offered by SAP is not a review of the project for conformance to the ASAP tools and templates, but rather assists the executive management and project manager at customer sites in providing a second opinion of the implementation progress towards achieving the project goals. The scope of the review is to investigate the application, technical and project management areas of the implementation. The review looks for good implementation practices while following a prescribed methodology.

TeamSAP

TeamSAP refers to the coordinated network of people, processes and products from SAP and partners that delivers continuous, fast, integrated and assured solutions. AcceleratedSAP is the main process component of TeamSAP.

- **The people:**

  SAP employees and certified implementation partners providing leadership, project coordination and know-how to implement, maintain and support R/3 based on your requirements.

- **The processes:**

  AcceleratedSAP with the embedded Business Engineer functionality, as well as integrated support, services and training on all levels.

- **The products:**

  The R/3 System with its strategic product architecture and open interfaces, providing both scalability and flexibility in an ever-changing business environment. Also, hardware and software products from hundreds of complementary software partners and hardware providers certified by SAP.

Fig. 3: Elements of TeamSAP

TeamSAP supports the concept of business change as a continuum. The goal is to offer SAP customers a full complement of TeamSAP resources to enable rapid technology upgrades or change-outs for access to new functionality. With respect to ASAP, this means that TeamSAP partners are available to carry out implementations, as well as ASAP-certified partners to carry out "Powered by ASAP projects". TeamSAP projects refer to projects carried out by TeamSAP partners, the use of ASAP or Powered-By implementation methodology, Project Quality Review, the assignment of an SAP Coach, and SAP's support on the project's steering committee. All of these are factors contributing to a successful implementation.

The following key benefits will enable you to carry out a more effective R/3 implementation and make effective use of your available resources:

- AcceleratedSAP helps to manage a "Big Bang" implementation strategy with the focus on essential business processes.
- There is a high degree of planning accuracy (time, costs, resources) through the Project Estimator and the Business Blueprint.
- AcceleratedSAP lays the foundation for continuous change and efficient reconfiguration when business or legal requirements change.
- You have a uniform approach to R/3 implementations among partners and consultants worldwide.
- There is an assured quality and know-how transfer during implementation.
- You can reuse the results of your configuration for subsequent implementation projects.
- You have reduced implementation costs and quicker ROI.

Phase 1: Project Preparation

In this phase of the ASAP Roadmap, decision-makers define clear project objectives and an efficient decision-making process. A project charter is issued, an implementation strategy is outlined, and the project team as well as its working environment are established.

The first step is for the project managers to set up the implementation project(s). They draw up a rough draft of the project, appoint the project team and hold a kickoff meeting. The kickoff meeting is critical, since at this time the project team and process owners become aware of the project charter and objectives and are allocated their responsibilities, lasting throughout the project.

Initial Project Scope/Technical Requirements

As the reference point for initial project scope, and updates or changes to the R/3 implementation, the project team can use the Enterprise Area Scope Document to compare the enterprise's requirements with the business processes and functions offered by R/3. In this way the project scope is roughly defined from a business and IT view. The former view concentrates on the enterprise's business processes that are to be supported by IT; the latter focuses on the IT required, down to the network and memory requirements.

Project Organization and Roles

One of the first work packages in Phase 1 is the definition of the overall project team and the specification of project roles to be assumed during implementation.

The main roles in an implementation project are that of the project manager, the application consultants, the business process team leader, the technical project leader/systems adminstrator, and the development project leader.

- The *project manager* is responsible for planning and carrying out the project.
- The *application consultant* creates the Business Blueprint by identifying the business process requirements, configures the R/3 System together with the business process team, transfers knowledge to the customer team members and assists the business process team with testing.
- The *business process team lead* at the customer site manages the work involved in analyzing and documenting the enterprise's business processes. This person directs and works with the business process team members, process owners, and users in order to develop the R/3 design, configure the system and validate the design. Furthermore, this person ensures that the R/3 implementation is tested and documented, and obtains agreement from both the business process owners and users.
- The *technical team lead* at the customer site is responsible for managing the completion of all technical project deliverables. The technical team lead works with the Project Manager to complete the technical requirements planning, and to plan and manage the technical scope and resources schedule. The technical team lead is also responsible for the overall technical architecture of the R/3 System.
- The *development project lead* is responsible for managing the definition, development and testing of necessary conversions, interfaces, reports, enhancements and authorizations.
- The *R/3 system administrator* is responsible for configuring, monitoring, tuning, and troubleshooting the R/3 technical environment on an ongoing basis, as well as performing checks, tasks, and backups within the technical environment, scheduling and executing the R/3 transport system and Computing Center Management System (CCMS). The R/3 system administrator manages and executes the R/3 installations, upgrades and system patches.

An example of an accelerator in ASAP is the "Project Staffing User Guide", which outlines all of the project roles, expectations, time commitments and responsibilities for everyone involved in the implementation. It also contains pre-defined organizational chart templates for the implementation team.

Implementation Scope

Phase 1 includes a scoping document called the Enterprise Area Scope Document, which is based on the R/3 Reference Model and can be generated using the Project Estimator. It contains high-level user-defined views of the scope of the project, as well as defining the corresponding plants, sites, distribution channels, and legal entities. This scoping

document maps to the Question & Answer Database (Q&Adb), which is used in Phase 2 to determine the detailed process and development requirements.

ASAP includes many document and reporting templates, as well as examples that can be used to help determine implementation standards and procedures. Procedures for scope changes, issue resolution, and team communication need to be defined. AcceleratedSAP provides you with instructions, examples and templates to put these procedures in place.

One of the most important procedures to be defined in Phase 1 is how to carry out project documentation, in particular R/3 System design documentation. For information on project decisions, issue resolution, or configuration changes required at a later date, good project documentation is invaluable. The following types of documentation should be defined in this phase and maintained throughout the project:

- Project deliverables
- Project work papers and internal project team documentation
- Business processes to be implemented
- R/3 design specifications for enterprise-specific enhancements
- Documentation on R/3 configuration and Customizing settings
- End user documentation
- Code corrections using OSS notes or Hot Packages
- Service reports and documentation.

More information on documenting the R/3 configuration can be found in Phase 3.

System Landscape and Technical Requirements

In Phase 1, the project team decides on the system landscape, as well as on the high-level strategies for creating R/3 clients, implementing new releases and transporting system settings. One R/3 System can be divided into multiple clients as needed, thus allowing for the handling of separate enterprises in one R/3 installation.

The technical requirements for implementing R/3 include defining the infrastructure needed and procuring the hardware and the necessary interfaces. For this purpose, you can make use of the Quick Sizing Service, which can be accessed via SAPNet.

The Quick Sizing Tool, or Quick Sizer calculates CPU, disk and memory resource categories based on the number of users working with the different components of the R/3 System in a hardware and database independent format. The tool intends to give customers an idea of the system size necessary to run the required workload, and therefore provides input for initial budget planning. It also offers the possibility of transactional/quantity-based sizing, therefore enabling customers to include their batch load in the sizing as well.

The Quick Sizing Service should be used as an input for hardware partners to identify your hardware needs and also get an idea of the probable size of the needed hardware configuration for project and budget planning reasons.

The archiving concept is drawn up in Phase 1. Regular, targeted archiving optimizes your hardware use and avoids performance problems. With the Remote Archiving Service, SAP enables you to outsource all the tasks associated with archiving the data in your R/3 System and have them performed by SAP specialists. As part of this service, SAP also customizes the archiving configuration in your system or verifies the current configuration. However, the Remote Archiving Service cannot provide the concept for your archiving strategy - it must be worked out as part of your implementation project.

It might seem too early to discuss archiving at this stage. However, eperience has shown that it is important to define the strategy as early as possible to ensure that archiving can be carried out when needed later.

Issues Database

Managing and resolving issues that come up during the project is an essential responsibility of the project manager and is fundamental to the success of an implementation. The focus of the manager should be to resolve or prevent issues. However, escalation procedures need to be in place in case an issue cannot be solved by the project team. Typically, issues must be resolved before phase completion or before beginning the next phase.

Issues can be regarded as hurdles that are identified during a project and may influence the success of the project. They can be:

- Unanticipated tasks
- Normal tasks that cannot be completed
- External factors that need to be dealt with

The Issues Database allows the project team to enter, track, and report on project issues. The database supports the following data for each issue identified:

- Priority
- Project phase
- Status
- People responsible
- Date required for solution
- Date resolved
- Classification (for example: resource, documentation, training or configuration issue)

Based on this data, the Issues Database enables you to quickly retrieve the information on specific issues by using filters and views on the data entered.

Concept Check Tool

ASAP also includes a concept check tool to evaluate the system concept and configuration and alert you to potential performance or design issues.

Using the tool checklists, you can analyze the project and implementation work either by yourself or with the assistance of your SAP consultant. The check focuses on project organization and the configuration of the R/3 applications.

Fig. Xxx: The Concept Check Tool

The checklists are designed dynamically, that is, as each question is answered, the following questions are selected so that you only answer those questions relevant to your system configuration. The checklists are used in the first two phases AcceleratedSAP, as it is advisable to deal with questions relating to each phase of the project as they arise.

IDES – the R/3 Model Company

The R/3 International Demo and Education System (IDES) is an additional R/3 system/client which is supplied with predefined system settings and master data. It is an integrated, fully configured, fully functional model company with an international scope and sample product range, which you can use early in your implementation. It is used, for example, in Phase 2 as a reference for R/3 processes and functionality. After defining the corresponding link, you can branch directly from the business process transactions of the Q&Adb to the live transaction in IDES.

In order to get started with the R/3 System quickly, you can use IDES to help visualize your own solution. During the planning phase, you can try out all the business scenarios to find the design best suited to your requirements. IDES also forms the basis for SAP's entire R/3 training program, including examples and exercises, and is the ideal way of preparing for release changeovers.

Phase 2: Business Blueprint

In this phase you document and define the scope of your R/3 implementation and create the Business Blueprint. The Business Blueprint is a detailed documentation of your company's requirements in Winword format. Application consultants and the Business Process Teams achieve a common understanding of how the enterprise

intends to run its business within the R/3 System, by carrying out requirements-gathering workshops.

During Phase 2, the project team completes R/3 Level 2 training; this is recommended as early as possible and before the workshops start.

Fig. : Elements of the Business Blueprint

The project team selects the processes that best fit your business from R/3's functional offering, using the following tools:

- AcceleratedSAP Implementation Assistant
- Question and Answer Database (Q&Adb)
- Business Process Master List (BPML)
- R/3 Structure Modeler
- Business Navigator and external modeling tools

Project Management

Establishing a proper cycle of project management activities ensures that the implementation project stays on target. Project Management includes all project planning, controlling and updating activities. The activities in this work package are:

- Conducting Status Meetings for the Project Team

  In the status meetings each project team's status is reported on, and important information is shared among the different project teams, so that there is a complete picture of the implementation process and progress. Progress impacts budget, scheduling and resources, and also the go-live date. It is important to coordinate integration aspects between the different project teams.

- Conducting the Steering Committee Meetings

  These meetings update the Steering Committee on the project status and obtain decisions about project issues that cannot be resolved by the project team (for example, changing the schedule or obtaining additional resources).

- General Project Management

  ASAP makes sure that additional tasks that support the implementation project or form the basis of further project planning are not overlooked.

- Addressing organizational issues relating to organizational Change Management.

Project Team Training

Training the project team should reflect the scope of the R/3 implementation and the needs of the individual team members. You want to conduct project team training in order for team members to obtain R/3 functional and technical knowledge to be effective members of the implementation project team. In the Business Blueprint phase, project team members attend Level 2 training courses.

Developing the System Environment

At this point, you install and technically configure the quality assurance and development systems. Within this work package, you define and test system administration procedures for the development system.

The foundations of the technical design are laid by the work done in the project preparation phase. The definitions of the implementation scope and the system landscape are used for a detailed analysis of your hardware, operating system, database, and network requirements.

- ASAP assists in evaluating the impact of the implementation scope on the hardware or network infrastructure with the organization.

- You also check whether processes used at particular workplaces call for special hardware requirements (for example, different screen sizes, PC configurations).

It is also important to define the strategy for maintaining the system landscape in more detail. This should include steps on how to provide R/3 release upgrades, integrate hot packages, along with operating system and database upgrades.

The technical design is presented to the steering committee to be signed off at the end of the Business Blueprint phase.

Even though the development system environment is not needed by the business process teams until the end of the Business Blueprint phase, it is recommended that the development system (and possibly a test/quality assurance system) be installed as early as possible. This will enable the technical team to have a few weeks to work with the R/3 System prior to any development or Customizing activities. AcceleratedSAP provides a checklist for installing the hardware and the R/3 System, and for verifying the R/3 configuration.

The next step is to install and configure the development system clients. During this activity you set up R/3 clients to reflect the business process and organizational decisions.

There are a number of pre-configured systems that are designed for different enterprise and business types. These systems are described in more detail at the end of this chapter. They should however be installed as part of the system landscape before the start of the Realization phase. If you are using the Ready-to-Run R/3 (RRR), this represents an accelerator for this work package, because R/3 is pre-installed and the parameters of the Basis System are preconfigured.

The R/3 Systems Operations Manual for the system adminstrator is begun to be put together here. It contains the documentation on the system installation and system administration procedures/policies, with detailed descriptions, persons responsible and escalation management plans for all R/3 System management activities.

The Pre-Configured Remote Link is a service used to simplify the setup of the OSS link between the customer and SAP. The setup is not difficult, but entails extensive logistical organization. The customer receives the hardware, OSS IDs, software and hardware configuration, and training and support for this area.

This service can save many days of effort for the customer at the beginning of the project. Among other things, the "rcPack" as it is called, contains an analysis of network and telecommunications infrastructure, a determination and proposal for an optimal mode of transmission, application forms and documents required by carriers, and purchase and delivery of necessary hardware.

After the R/3 System is installed, it is necessary to configure the operational enviroment for the development system. This should include the backup/restore procedures along with the CCMS (Computing Center Management System) settings. These tasks are an ongoing process throughout the Business Blueprint Phase.

AcceleratedSAP provides a list of daily checks and reports that should be run to help administer and maintain the development environment. The Guidebook "System Administration Made Easy", written by the R/3 Simplification Group for both Windows NT and Unix, is available as an accelerator.

The Implementation Guide is described in detail in the Realization phase. At this point in the project, however, it should be created for the enterprise based on the implementation scope. The IMG is used as a reference at the last stages of the business process definition, therefore, you will want to have this in place before beginning the business process definition.

Defining the Organizational Structure

An important step during the implementation of R/3 is the mapping of enterprise-specific structures and requirements using R/3 organizational units. Decisions on the use

of specific organizational units are influenced by various factors relevant to the organization itself and the implementation goals it is pursuing.

Fig.: R/3 Structure Modeler for displaying organizational structures

The selection, usage specification and linking of the R/3 organizational units should be carried out at an early point in the project, and involves management as well as user departments. Usually there are several different possibilities of mapping enterprise-specific organizational units. You can define alternative organizational structure scenarios in order to compare them and decide on the most suitable one.

Questionnaires and a graphic display support the discussion on organizational units between SAP consultants and their customers. Mapping the enterprise onto R/3 organizational units becomes transparent, and the simple, systematic display supports the interpretation of differences between alternative structure scenarios.

In order to create structure scenarios, SAP has developed the R/3 Structure Modeler, included in AcceleratedSAP. It is used as an add-on under Visio® 5.0 and offers comprehensive support due to its extended graphic functionality (creation, naming and allocating of new instances of the R/3 System, consistency checks, definition of views, scenario-specific documentation, help files). The Structure Modeler is available in German and English. It is integrated in the Knowledge Corner of the ASAP Roadmap.

The use of tile diagrams has proven effective for the graphic display of structure scenarios. Every occurrence (instance) of an R/3 organizational unit is represented as a colored tile. The tiles representing instances of the same R/3 organizational unit have the same color. The positioning of the tiles in several layers enables you to recognize relationships between them.

The Q&Adb enables you to describe the structure of your enterprise on two levels:

- The Business Overview level, with organizational structure questions enabling an analysis of enterprise-specific determining factors, and
- Organizational questions for each enterprise area.

The Structure Modeler also enables you to illustrate your organizational structure in relation to a distributed system infrastructure.

Defining the Business Processes

After you have defined your organizational structure for R/3, the definition of the business process for your Business Blueprint is the next step. You now map the enterprise requirements onto R/3 business processes, in order to create the conceptual

design for your R/3 implementation. For this, the following activities need to be carried out:

- Conducting business process workshops
- Completing the Business Blueprint, reviewing it and obtaining management signoff
- Setting up an end user training schedule

Besides determining the R/3 functionality to be implemented, the following types of requirements should be identified in the business process workshops:

- Reporting requirements
- Interface requirements
- Conversion requirements
- Enhancement requirements
- Authorization requirements

Since all the results gathered during the workshops will subsequently create the Business Blueprint, the importance of this step cannot be underestimated. The main tool used to define the business processes is the AcceleratedSAP **Question & Answer Database** in conjunction with the R/3 Reference Model. In the process, information is gathered using the following tools:

- Business Process Questions (via R/3 Reference Model)
- Customer Input (CI) Template
- Business Process Master List
- Knowledge Corner

R/3 Reference Model

The R/3 Reference Model contains over 1,200 business processes, created on the basis of feedback from R/3 customers on their "best business practices". This structure and visual representation in models support the business process discussions, as well as being used to graphically illustrate a particular area of functionality. There are different types of models available for different target groups and purposes. Project managers, for example, need an overview of all the R/3 components and processes, whereas a team member is more likely to require the details of a process.

The R/3 Reference Model serves as the basis for business engineering and the definition of business process requirements. Using the various types of models, you can quickly identify potential for business process optimization.

Fig. : Different types of models in the R/3 Reference Model

The R/3 Reference Model can be used as the basis for the following:

θ Comparing the standard R/3 functionality with your enterprise's own organizational structures and processes, and defining all the relevant processes and functions, in order to create the Business Blueprint

θ Creating documentation (including graphics) for the conceptual design

θ Optimizing your business processes

θ Training the project team and users

θ Writing user documentation

The R/3 Reference contains the following types of models designed for different target groups and goals:

- **Process model**

  The main type of model, containing process flow views of the entire R/3 functionality, for example, procurement of consumable materials or purchase order processing. This model is used, among other things, for industry-specific modeling and is described below in greater detail.

- **Component hierarchy**

  In the component hierarchy, you select the R/3 components you want to use in your enterprise to support your business processes. Examples would be the component HR Human Resources, or Accounts Payable from FI Financials. This has a chain of effects throughout the entire R/3 System. The selections made in the component hierarchy also determine the structure of the following:

- Implementation Guide (for R/3 Customizing)

- Session Manager (to define company menu, user-specific menus)
- The Profile Generator (for user authorizations)

Fig. 26: Configuring the IMG by selecting the application components

For more information, see the section on *R/3 Customizing* under Phase 3.

- The **Business Object model**, which is a description of about 200 business objects such as customers, vendors, employees, cost centers, etc.

The main purpose of the Business Object Model is the determination of the input/output assignment of business objects. These are lists that tell you which business objects are required as input for a process and which are created as output. It is also used for checking the data and processes in the productive system.

Each object in the system represents something in the real world, for example, a sales order or customer. Business object technology has several merits, not least the integration and synergies between objects from both a technical and a business viewpoint. R/3 Business Objects as real-world entities will emerge more and more to allow enterprises to design parts of their business processes by using objects.

The R/3 Reference Model, together with its process models, business objects, business object models, data models and their data and links, is stored in the R/3 Repository. It also contains technical information such as data definitions, screen definitions and program objects that are used for developing and enhancing the R/3 System. In addition, the R/3 Reference Model, in particular the process model, forms the basis of requirements gathering for the Business Blueprint in the Q&Adb.

The R/3 Reference Model is used to access and link processes and business objects. Since the business objects are used to communicate with the R/3 Repository, both the data model and the structure and contents of the underlying tables can be accessed. This makes interface and enhancement design considerably simpler.

Process Model

Together, the organizational structure and the model graphic (see below) form a powerful basis for the modeling of all business process requirements and their optimization. Process models are structured hierarchically and contain the following elements:

- **Enterprise process areas**

  : an area in an enterprise that has responsibility for certain business scenarios. Examples of enterprise process areas are sales or procurement. Enterprise process areas are used for structuring purposes only and are not represented graphically.

- **Business scenarios**

  are assigned to a particular enterprise process area, and describe on an abstract level the logical flow of your business across different application areas, such as Materials Management or Quality Management, using processes. Event-driven

process chains (EPCs) and value chains are used to visualize them. An example of a business scenario would be "Sales order processing for assemble-to-order".

- **Process groups**

  are groups of individual processes that are bundled so that they can be visualized more easily.

- **Processes**

  : These describe the smallest self-contained business sequences and represent the possibilities within a given R/3 transaction, where detailed **functions** are carried out. Processes are also represented graphically as EPCs.

Fig. 13: Hierarchical structure of business processes in the R/3 Reference Model

Industry-specific Reference Model

In Release 4.0, the R/3 Reference Model was revised and aligned more closely with different industries' needs. The R/3 Reference Model now matches many the requirements and business process structures of many industries quite precisely, and more effectively bridges the gap between the business and technical viewpoints.

The industry-specific R/3 Reference Model was developed in cooperation with leading industry players using their underlying concepts and language. As a result, you do not have "re-invent the wheel". In the Q&Adb, you can simply choose the scenarios that correspond to your type of business. Moreover, you can mix and match scenarios, and change them to suit your requirements. Examples of industry-specific senarios can be seen in the graphic below.

Fig. 23: Industry-specific Reference Model with Enterprise Process Areas and Business Scenarios

Visualization of Process Models

Process models can be visualized in two different ways: the high-level value chain and the more detailed event-driven process chain (EPC), described below.

Value chains can be defined for a particular type of business or industry, showing the overall course of a business process across enterprise process areas. On a very highly aggregated level, the value chains show how business scenarios are linked. Value chains show the integration of business scenarios and processes across departmental boundaries. They therefore offer an ideal opportunity to optimize business structures and routines.

Fig. Xx: Value chain for baking goods production

Event-driven process chains (EPCs) link data, tasks and organizations, and are therefore an important element in business process design. As well as describing the chronological sequence of steps in a process, they also take into account aspects of the organization and information requirements. Elements of EPCs are explained in more detail below.

Fig. 12 (2-5): The basic structure of an event-driven process chain

EPCs consist of four basic elements:

- **Event**

  Describes when something has happened requiring activity, for example, *Order is received*, or when something has been carried out, for example, *Order is released.* Events are very often triggers for further processing

- **Linking operator**

  Symbol portraying logical dependency modeling business processes. linking operators can exist between events and functions in process chains.

- **Function**

  Describes the R/3 function to be carried out, for example, *Check order.*

- **Process path**

  Graphical object used in modeling R/3 business processes. Process paths are icons representing logical connections between processes within a business application or across applications.

Navigation in the R/3 Reference Model

You can display the contents of the R/3 Reference Model with the **Business Navigator** or the **Business Navigator Web**, which are fully integrated into the R/3 System. You can display the model in either of two hierarchy views, as described above:

- Process flow view
- Component view

The following graphic shows the process flow view of the R/3 Reference Model in the Business Navigator.

Fig.: Process Flow View of Business Navigator

The Business Navigator as well as the Business Navigator Web allow you to browse through a model in order to understand its structure and see how processes are related and organized on an enterprise-wide level.

In order to start the Business Navigator Web, you must have access to the R/3 Reference Model or to one or more customer-specific models.

Fig. 18: Business Navigator Web

When an EPC diagram is displayed in the Diagram Viewer of the Business Navigator Web, you can study it by animating it, that is, by walking through each function and choice point in order to observe the flow of control and dependencies in the process represented by that diagram. You can follow the flow of control into different diagrams to see how various processes are connected to one another.

To install the web server for the Business Navigator Web, you must have the Microsoft Internet Information Server (IIS) installed on a Windows NT server. A Java-enabled web browser installed on the client machine is also necessary.

The R/3 Reference Model can also be viewed and modified as desired for your enterprise with external PC-based graphics and modeling tools. These tools must be licensed separately. Modeling tools available with the R/3 Reference model are:

- ARIS® Toolkit/ARIS Easy Design by IDS Prof. Scheer GmbH

- LiveModel: SAP R/3 Edition® by IntelliCorp Corporation
- Visio Business Modeler® by Visio Corporation

- Enterprise Charter

  ® by Micrografx Corporation

These modeling tools can be launched from the Q&Adb.

Question and Answer Database

The Question & Answer Database (Q&Adb) contains technical and general business questions, the answers to which are the input for the creation of the Business Blueprint. The questions are designed to determine the enterprise's detailed business requirements in an integrated environment. In conjunction with the Business Process Master List, the Q&Adb is also used to determine the *baseline scope*, *cycle plan* and *integration testing scenarios* used in later phases.

- The Baseline Scope Document

  Defines the business processes and requirements that will be configured and tested during the baseline configuration session.

- Cycle Plan

  A tightly controlled group of business processes, which together constitute an optimal sequence and assembly that is used for configuring and developing the R/3 solution.

- Integration Test Plan

  The plan that joins together the defined resources, time frames, scope and procedures for executing the integration test.

Fig. Xx: Defining the business process requirements via questions in the Q&Adb

You can also add, change, and delete questionnaire content in the Q&Adb. In this way, project teams can customize the requirements gathering process by creating new questions and editing existing ones.

The business process questions and customer input template (see below) are oriented along the current release of the R/3 Reference Model, specifically of the process model. Within this framework, what is in and out of scope is determined for the project, by toggling the business scenario or process "in" or "out" of scope in the Q&Adb.

There are several reports that you can generate once the questions in your Q&Adb have been completed. One important report is the Enterprise Area Scope Document defined in Phase 1: This is an Excel spreadsheet containing the SAP enterprise areas and scenarios that a company will be implementing. It is used in initial scoping of the project, to assign Business Process Owners, and also as a reference to begin Business Blueprinting.

Further reports are the Business Process Master List (Excel file) and the Business Blueprint (Winword file). These are explained in more detail below. You can also generate an Excel spreadsheet of all open issues in the Issues database.

Customer Input Template

When the business processes are being defined, the Customer Input Template forms a standard structure for gathering specific data on the business processes. The customer input template can be modified to reflect the areas of concern for your implementation project and is used in conjunction with the business process questions.

Fig. Xx: The CI template in the Q&Adb

The following graphic shows how tools are used in combination to ensure the flow of information through the project.

Fig. : Flow of project information through the Q&Adb

When a process or a scenario appears more than once, one of the processes or scenarios can be defined as the dominant (representing the 80% case), and the other processes/scenarios are then defined as subordinate. This means that answers given to the dominant will be used as a reference for all subordinates.

After the business process workshops have concluded, the results are processed and documented within the Q&Adb. If enterprise-specific processes come to light, they can be added to the Q&Adb at any level, as needed to provide one complete database for your requirements.

Completing the Business Blueprint

The Business Blueprint serves as your conceptual master plan and is assembled into a detailed written document. This document summarizes and documents the business requirements in detail, and serves as the basis for organization, configuration and, if necessary, development activities.

The Business Process Master List (BPML) is the primary activity-tracking and control mechanism used by the project management team during the Realization phase.

The BPML is first created at the end of the Business Blueprint phase from the Q&Adb in order to create the Baseline Scope Document and then used during the next phase for monitoring and control of the R/3 configuration and testing activities. You can find more information on the BPML in the next chapter.

The baseline scope is generated via the Q&Adb and the Business Process Master List. The amount to be included in this scope will vary based on each individual project implementation. As a guideline, the baseline scope should target to address roughly 80% of the total business requirements.

As a last step in this phase, a quality check, the final verification of all deliverables, from this phase should be carried out. You can also use the Concept Check Tool for this. However, it is also important that continuous quality checks be performed throughout the phase as tasks are completed.

The Business Blueprint ensures that everybody has an accurate understanding of the final scope of the project regarding business processes, organizational structure, system environment, project team training and project standards. Issues regarding changes in scope, impact on budget and resource planning must be addressed.

Together, ASAP and the Business Engineer split up the work of creating the Business Blueprint and configuring R/3 in manageable steps, starting at the top with the overall structure of your business and gradually working down to the details of your business and process requirements.

Accelerated Solutions/Preconfiguration

SAP's Accelerated Solutions speed up implementations by providing you with two important types of preconfiguration:

- Technology-based preconfiguration: this refers to the "turnkey R/3 solution" called Ready-to-Run R/3.
- Content-based preconfiguration: this refers to systems preconfigured for *countries*, and systems preconfigured for *industries*. Country configurations have been created for the United States and Canada, and are also called "preconfigured clients".

Ready-to-Run R/3

Together with AcceleratedSAP, Ready-to-Run R/3 can be used in order to reduce the number of days necessary for technical support and consulting when installing R/3 at the customer site. This turnkey system provides a pre-installed and pre-configured R/3 solution that can save customers up to 25 consulting days. It consists of a complete hardware, software and network infrastructure, as well as a comprehensive operations and support concept. Ready-to-Run R/3 is available from many hardware manufacturers, and uses the Microsoft Windows NT operating system.

Preconfigured US and Canadian Clients

The preconfigured client is a set of transport files consisting of the most frequently used U.S. and Canadian Customizing settings.

Configured features for the U.S./Canadian market:

- Charts of Accounts
- Organizational Structure
- Print Forms or Layout Sets including: Checks (U.S. & Canadian), POs, Picking List, Packing List, Invoice, Sales Order Confirmation.
- American/Canadian units of measure
- An R/3 end user template
- Integration of PP with FI/CO
- Sample work-in-process calculation
- Asset Management preconfigured with American depreciations
- Sample functional areas for Cost of Goods Sold Accounting

R/3 modules containing preconfigured items are FI/CO, MM, SD, AM, some PP and Product Costing.

The preconfigured client can be used as:

- **A starting point for further configuration.** In this way, you avoid configuring settings that are typical for your country or industry.
- **A sandbox client with a simple organizational structure.** Like the IDES model R/3 company, the sandbox client in the development preconfigured system can be used to get a feel for R/3 and what it has to offer. Different configuration scenarios can be created and tested in a short time using this as a base.

Preconfigured Industry Systems

Today, much industry-specific know-how is already available. There are written documents, presentations, industry-specific descriptions of how the processes in the R/3 System run, industry-specific system settings, master data, etc. The main goal of preconfigured industry systems is to provide this information on industry-specific solutions in a structured and logical way.

Preconfigured systems are available or planned for the following lines of industry:

- Aerospace and Defense (planned)
- Automotive Suppliers
- Banking (planned)
- Consumer Products
- Construction (for Rel. 3.1)
- Engineering (planned)
- Healthcare
- High Tech (planned)
- Insurance
- Media
- Oil&Gas

- Paper (planned)
- Pharmaceuticals
- Public Sector (planned)
- Retail (planned)
- Steel
- Utilities (planned)

Preconfigured industry systems are also often called "Industry Templates" or "Industry Blueprints". The information in the preconfigured industry systems can be used as a basis for the Blueprint and Realization phases and for training the project team.

The preconfigured industry systems show you that SAP has a fundamental knowledge of your industry's business processes and of how to implement these processes in R/3.

Using preconfigured industry systems for an R/3 implementation can help to speed up the implementation process and reduce costs, lower the risk of wrong estimates with respect to the time and costs of the implementation, avoid implementation errors and document the implemented functionality.

A preconfigured industry system includes the following:

- The **industry model** with industry-specific business scenarios and processes. For each model element, an industry-specific or even enterprise-specific term can be used.
- Industry-specific **system settings** (Customizing settings) to run the business scenarios in the R/3 System
- **Sample master data**

  to use for every business scenario

- **Documentation**

  of all steps and presentations with examples and explanations from the industry

Together with consultants and industry leaders, SAP has already created a number of preconfigured R/3 industry systems containing configured settings and master data. These can be employed for training and simulation purposes, but can also be used as the basis for your own R/3 System.

Fig. 21: Preconfigured R/3 Systems for vertical industries

SAP is committed to providing preconfigured industry systems for all of the SAP Industry solutions. However, the preconfigured system principle is not limited to those provided

by SAP. Partners and enterprises can create their own models for accelerating implementation in particular areas or markets.

The concept of preconfigured industry systems also enables software partners or enterprises to include their specific **add-ons** to the specific preconfigured industry system.

Phase 3: Realization

The purpose of Phase 3 is to configure the R/3 System, in order to have an integrated and documented solution which fulfills your business process requirements.

In this phase, configuration of your system is carried out in two steps: Baseline and Final Configuration. The Baseline configuration is designed to configure about 80% of your daily business transactions and all of your master data, and organizational structure. The remaining configuration is done in process-oriented cycles. The Business Blueprint is used as the guide for the system configuration, done using the Implementation Guide, which will be described in detail in this chapter. After this, data transfer programs, as well as interfaces, need to be tested.

Fig. 3-1: Main work packages of Phase 3

Business Process Master List (BPML)

The Business Process Master List (BPML) is initially created in Phase 2 as a report from the Q&Adb. It is used to identify, plan, schedule, and monitor the configuration and testing of all R/3 business scenarios and processes within the scope of an implementation. The Business Process Master List is comprised of Excel worksheets that collectively facilitate the configuration and testing of R/3.

The Business Process Master List is a representation of the R/3 business processes and transactions that are contained within the scope of the project. These are refined during the Realization Phase into the project's applicable business scenarios and R/3 transactions. The Master List is the central data repository that feeds all business process information to all subsequent worksheets. It contains the baseline scope, the cycle plans (you can define up to four configuration cycles), integration testing plans, and further templates.

A *business process procedure* (BPP) is a filled-out template that provides the initial definition for developing User Procedures and Case/Test Procedures. The results of the business definition meetings held with the customer provide an input for the initial business process procedures.

Fig. : Business Process Master List (BPML)

Business process procedures provide the most detailed level in the BPML and form the basis for defining the scope of your configuration cycles. They also represent a filled-out template attached to the structure you see in the BPML. This template gives you a head start on end user training and documentation.

Baseline configuration is performed by the application consultant while the business process team is attending Level 3 training. This will allow the team to get a firm understanding of processes within R/3 and of how the IMG is used to carry out actual configuration. The team will be able to test the Baseline configuration and validate that all the requirements have been met by developing and performing **Baseline Scenarios**.

Baseline Scenarios replicate your key business processes in the R/3 System to check that the Baseline provides the required configuration and business solution platform for the final business solution. The number and detail of Baseline Scenarios depends on the confidence level you want from the confirmation. The goal must be to define scenarios for your key business flows.

Final configuration will build upon the Baseline. This configuration is performed by the business process teams. Each configuration core business process is divided into cycles of related business process flows. These can be configured in parallel, for which reports, user procedures, testing scenarios and security profiles need to be developed. The cycles not only provide milestones for the project team, but also provide points at which the business processes can be demonstrated to the user community. This approach provides immediate feedback as well as involves the entire organization in the project.

The BPML enables you to manage all the integration testing necessary to validate the system configuration. Integration testing is planned for all the scenarios within the implementation. Multiple cases should be defined and tested to duplicate real business examples across areas.

Fig. XX Baseline configuration and testing

From the BPML, it is possible to call up an R/3 System, provided you have installed a local GUI. In this way, you can branch to the transaction you want to implement to see its functionality. Also, there is an "outline" icon that allows you to expand and suppress the business process detail, at the enterprise, scenario, case, business process, or BPP level, in order to best facilitate the work that you're doing.

You can also view linked documents, such as the BPP document or the CI template from the BPML. Furthermore, when you need to add the same information to multiple cells in a column, you can use the "Fill Cells of Child Records" icon. This copies the information in the current cell to all its subordinate cells.

Lastly, the Business Process Master List has a hypertext documentation linked to it, which guides you through all creation and maintenance steps.

Uploading the BPML Scope to R/3

Provided you have created a Customizing project in the R/3 System – without however generating the Project IMG for it – you can upload the scope of your BPML to R/3. The prerequisite for this is the use of at least R/3 Release 4.0 and the maintenance of the corresponding R/3 login information in the BMPL User Profile.

You then generate the BPML, and enter the number of the project you have created in the R/3 System.

Fig. Xx: Generating a Business Process Master List

After the generation run, the system has loaded the scope into the R/3 System. However, in order for the scope to be included in the project, it is now necessary to generate the Project IMG in the R/3 System itself.

The advantage of this method is that you can access the R/3 IMG from the BPML, and branch to precisely the activities relevant to a particular process.

The project managers have to plan the work in this phase early enough to involve all those affected. For example, as part of the planning of the integration tests, organizational matters such as the equipment required, invitations to employees at other sites, and the testing procedure should not be overlooked.

The project manager also has to ensure that the project standards are adhered to, discuss the progress of the project with the Steering Committee, and to ensure that the activities are correctly integrated, especially user documentation and training.

On the technical side, the interfaces and enhancements are developed, data is transferred from the legacy systems, and the archiving system is set up.

At the end of the Realization phase, you will have an application system tailored to your business needs that has been approved by each department and by management. How this is done in detail is explained further on in this chapter.

Customizing R/3 with the Implementation Guide

The Implementation Guide (IMG) is the main tool for setting the parameters to configure or "customize" R/3 during this phase. R/3 is configured by the business process teams and/or consultants by following the steps in the IMG. The Implementation Guide is used for:

θ Initial implementation of the R/3 System

θ System enhancement and modifications

θ System maintenance and release upgrades

Fig. xx: Component-oriented or process-oriented configuration

Using the Implementation Guide, you can:

- Manage, process and analyze implementation or enhancement projects

- Configure R/3 functions in your company quickly, safely, and cost-effectively.
- Tailor standard functions to meet your company's specific business needs.
- Document and monitor the implementation phases in an easy-to-use project management tool.

    θ Automatically transfer of configuration data from the quality assurance system to the productive system, thereby ensuring consistency

Configuring the Implementation Guide

The IMG contains all configuration tasks necessary to adapt R/3 to your business needs. Therefore, it is important for the speed of your implementation project that the IMG only contains implementation tasks that are really necessary. In order to do this, SAP allows you to configure the IMG and hereby cut down the number of configuraton tasks to a reasonable minimum:

1. An *Enterprise IMG* is created from the R/3 Reference IMG, which contains the whole range of activities. This defines which R/3 components are to be implemented in which countries.

2. A *Project IMG* is created for the individual project by selecting countries and application components from the Enterprise IMG.

3. *Views* are created for every Project IMG. Selecting attributes reduces the number of activities to be processed again. Of particular interest is the mandatory activity view. It only shows the activities that must be carried out.

This configuration process, shown in the following graphic, together with sample navigation paths, considerably reduces the size of the IMG.

Fig. 27 (2-10) Reducing the implementation scope

All the Customizing activities have attributes that are used to specify the IMG. Each IMG activity has the following attributes:

- Key and status
- Assignment to R/3 application components
- Assignment to countries
- Assignment to a work package in the ASAP Roadmap
- Assignment to transport type (transport of all change requests, transport of original activities, transport of copied activities)
- Client dependency
- Language dependency
- Classification as optional or mandatory
- Classification as critical or not
- Selection fields allocated, for example, for indicating a Global Template

Structure of the Implementation Guide

The structure of the IMG reflects the chronological order in which the Customizing activities are to be carried out.

Fig. 14 (3-4): From the Reference IMG to the customer-specific Project IMG

You can execute all activities directly from the IMG. In addition, the following functions can be called:

θ IMG documentation
The documentation function tells you what the activity is needed for, what effects a change in the configuration will have and what to do. Since the documentation is displayed in a separate window, you can view it while you carry out the instruction steps.

θ Activities
This function calls the Customizing activity where you can make the settings you need, for example, for payment conditions.

θ Project management
This function enables you to document the project status, schedule and resources.

- Project documentation
This function enables you to create project documentation for each Customizing activity.

Once you have created your IMG, some of the evaluation possibilities are:

- Display of all planned Customizing activities
- Display of all Customizing activities necessitating completion
- Display of all finished Customizing activities
- User-defined evaluations of Customizing activities

Fig 29 (10): Changing Customizing for a sales order so that export check is carried out

The R/3 Customizing tables have been bundled into different views in order to make it easier to understand the business concepts behind them. Each change to a Customizing object is automatically recorded in a transport request and can be planned for export to the productive system. This procedure guarantees that the productive system is consistent with the quality assurance system and is easy to maintain.

IMG Project Documentation

Project documentation, which mostly concerns decisions made about IMG activities, is stored in the Project IMG itself. You can also plan and confirm your schedule and overhead for activities using project documentation.

Fig. 28 (2-8) The IMG menu with IMG activities and HTML-based documentation

Comprehensive, standardized project documentation enables you to log all implementation plans and changes. There are three types of project documentation:

- Organizational structure and process documentation
  This sort of documentation, which is based on the R/3 Reference Model, describes the business functionality and the integrated processes in the R/3 System separately from the technical aspects.

  θ Project work documentation
  This documentation is written in SAPoffice, in which you can also store and manage the documents in folders automatically generated by R/3 to match the Reference Model.

  θ Customizing documentation
  Notes are entered and stored in the IMG for each Customizing activity. This ensures that the configuration is easy to understand even after the project has finished.

Using the Business Navigator, you can move directly from the processes or functions you want to implement to the corresponding SAPoffice folder. You can also navigate

straight from the application components, to which the processes and functions are assigned, to the configuration activities and notes in the IMG.

SAPoffice allows you to edit and store all the documents and information that you need during your implementation project. It has interfaces to various PC-based editing tools, for example, Microsoft® Word, Microsoft® Excel, Microsoft® PowerPoint, and Lotus® ScreenCam. Also at your disposal is SAPoffice's entire mail functionality, which enables you to store your documents in structured folders and exchange them with other members of the project team using distribution lists. This way, you can ensure that the entire project team is kept up-to-date.

The methodical recording of all activities and information during the implementation builds a solid basis for the user documentation that is written in the next phase. Together with the Business Process Procedures, the application system documentation and the conceptual design drawn up at the beginning of the project form a considerable part of the user documentation and training materials.

Customizing Functionality

Among the basic functions that you can carry out in using the Implementation Guide is how to carry out your system installation (setting up system logs, defining logical systems, communication servers, etc.) setting up clients, maintaining users, making individual Customizing settings, and setting up the transport functionality.

The management of Customizing transport requests for transferring settings from the quality assurance to the productive system has an important role to play. The R/3 transport system transfers all the settings and parameters you make in the quality assurance system to the productive system. These are activated in the quality assurance system, meaning that a Customizing request is maintained for every setting made, which can then be transported.

This way of working not only guarantees consistency between the quality assurance and productive systems, it also makes it much easier to change processes and carry out release upgrades. You can use the *Transport Organizer* for cross-client transports and the *Workbench Organizer* for cross-system transports. Project IMGs and the related documentation can also be transported.

Global settings include such objects as currencies, countries, units of measurement, and factory calendars. These settings can be configured centrally, as they function independently of the individual business processes. These are the first steps the IMG guides you through when you start configuration.

Data and reports required for strategic and for operational purposes are also configured in this phase. R/3 offers many typical reports which you can tailor to your individual

business needs. In Phase 3, you have to check that the reports meet the enterprise's needs, making any adjustments that may be required.

The Report Navigator is a comprehensive catalog of approximately 1,500 reports which makes it easier for users to find standard reports. Most reports listed contain comprehensive documentation.

In Phase 3 you define and create *all* the reports that you will be using, and this tool helps with this process. The Report Navigator is located in the Knowledge Corner of AcceleratedSAP.

Customizing Wizards

Customizing wizards are similar to wizards found in Windows software that assist the user by using a series of simple dialog boxes. These easy-to-understand wizards "converse" with the user to collect information. Upon completion, the wizard automatically updates the corresponding R/3 Customizing tables with the appropriate settings. Each wizard focuses on a specific R/3 Customizing topic, which can then carry out the Customizing of multiple IMG transactions.

Fig. Xx: Customizing wizard for MM account determination

The wizards can be used for initial configuration settings as well as for subsequent changes. This means that the wizards must first read the existing R/3 Customizing table settings. This also implies that the "classic" IMG can still be used interchangeably with the wizards. The following wizards are available:

- MM Account Determination
- SD Output Determination
- SD Revenue Account Determination

Preconfiguration Tools

For Release 4.5A, so called *Business Configuration sets* (BC sets for short) have been developed to save Customizing parameter values from a business point of view, that is, a part of the Reference Model. In order to save the parameters of one Customizing activity for a model element, individual *Customizing profiles* can be used. These can then be grouped to form Business Configuration Sets.

Fig. Xx: BC Sets and compare tool (Customizing Cross-System Viewer)

In a further step of the Business Engineer functionality, it will be possible to load BC sets assigned to model elements into the system. This means that they can be taken over automatically in the corresponding Customizing views. BC sets can have as many hierarchies as needed, down to the individual profile level. On the other hand, you can have a BC set with a direct value assignment, which is transferred to the quality assurance or productive system via a transport order.

The Customizing Cross-System Viewer is a tool that enables you to see at a glance what Customizing data has been transported to another system and compare the two systems with respect to this data.

This is a tool for checking the consistency of client-specific Customizing changes. In a typical R/3 System infrastructure, changes made in the development system are transported to the quality assurance system and then to the production system.

To check the consistency of changes in the quality assurance system before transporting them to the production system, you transfer them to an intermediate import client first. You then start the Customizing Transfer Assistant in the quality assistant client, and log on to the import client via Remote Function Call. Normally, you use the Customizing Transfer Assistant together with other cross-system tools such as the Customizing Cross-System Viewer.

Further Aspects of the Realization Phase

The following aspects of configuration need to be taken into account during the steps carried out for the Realization Phase:

- Defining authorizations in the R/3 System
- Defining your workflows
- Creating your user documentation

Authorizations (Profile Generator)

As well as the configuration of an enterprise's organizational structure and business processes, one important task in Phase 3 is setting up the authorization profiles for the users.

For this, the employees' tasks are matched with the authorization profiles supplied by R/3 in the form of pre-defined activity groups. These profiles can be adjusted using the Profile Generator. This often used to be the job of the technical team, who had to quiz the staff as to the details of their business processes. It is now so easy that the members of the project team responsible for the business processes can take care of it themselves.

R/3's flexible authorization concept has several strengths:

- It protects applications and data from unauthorized access
- It provides users with the necessary authorization for individual applications

The administrator no longer has to define authorizations directly from the authorization objects; instead, the tasks that are to be performed using R/3 are simply selected. The Profile Generator creates the authorizations automatically and bundles them in a new authorization profile. The administrator is not required to intervene again until the end of the process when the organizational units, for example, for plant or company code have to be specified. However, it is the Profile Generator that then transfers the organizational information to the authorization fields.

There are several advantages to defining authorization profiles in this way:

- The configuration process is considerably simplified.

- Profiles are more precise and easier to understand.

- Communication between the administrator and the users is simplified by the use of terms the user is familiar with.

You can adapt the transactions of each application to the business requirements of your company and of different groups of users. Typical work centers are defined by assigning standard transactions or customized transactions to a user group. End users are only offered the transactions that fit their respective work centers, and unnecessary navigation in the SAP applications is eliminated. In the process, the appropriate authorization profiles for the employees are defined, fields are prefilled, hidden/locked and an individual user menu can be generated.

SAP Business Workflow

In Phase 3, SAP Business Workflow is typically used to define such business processes as invoice approval, availability checks, trip cost accounting and purchase requisition approval. It offers further optimization potential in automatic handling of exceptional situations and missed deadlines, for example.

With SAP Business Workflow, the user is at the heart of the business process. An intuitive electronic inbox receives all messages and documents for each employee. Employees are kept informed about the tasks that they are involved with and supplied with all the information they need. A range of filter functions makes it possible to configure the inbox to meet the needs of your enterprise or of the individual employees. You can set up folders, manage documents and set resubmission dates.

The implementation process is accelerated by using preconfigured workflow templates on a number of different levels. SAP offers a library of templates that contain ready-to-run application scenarios. They can be used as they are or adapted to meet your own individual requirements. The templates harmonize perfectly with the application components. The graphical workflow editor makes it easy to change the workflow definitions at any time without any programming effort. The changes do not have to be made to the applications themselves, so that the adjustments can be made during productive operation.

Analyses of completed processes and observations of trends can offer invaluable information about the cost and effectiveness of individual processes. Those that are too costly or too time-consuming can easily be pinpointed for reengineering.

ABAP Workbench

The ABAP Workbench is a complete development environment integrated into the R/3 System that enables you to make modifications to the standard R/3 applications. It is used by innumerable R/3 customers and by SAP's own developers. A sophisticated enhancement concept ensures that all such changes are consistent and easy to maintain. The ABAP Workbench is also used for defining interfaces and transferring data.

ALE – Distributed Business Processes

Business processes are subject to continual change and typically evolve from a sequence of worksteps to a network of processes. The prime consideration in process design is the enterprise's business; the IT infrastructure is of secondary importance. Sometimes, in order to keep intercompany processes consistent, information systems have to be separated or distributed. Both the implementation and development of such scenarios have to be flexible enough to support changes in requirements.

The Application Link Enabling (ALE) initiative opens up new perspectives in this context, facilitating the loose coupling of distributed R/3 and third-party applications alike. Because communication between applications is based on business object technology, all settings are easy to access and consistency between different application systems is guaranteed.

One example of a distributed scenario is centralized accounting and customer master maintenance combined with local sales operations.

Creating User Documentation

Once you know the number of users and tasks for R/3, you can plan the structure, contents, and format of the user documentation. Before you create the documentation, you have to define how you want to have documentation changes managed.

One accelerator that is available to help your documentation and training become successful is to use the Business Process Procedures that are contained in the Business Process Master List. The BPPs, created for most R/3 business processes and scripts, are like step-by-step procedures of how to carry out a process. Adapting these scripts to your implementation by taking screenshots and filling in field information allows you to easily create documentation for every business process.

System Management Procedures

In the Realization phase, procedures for system management also need to be defined, in order to prepare the system for productive operation. This includes monitoring productive infrastructure needs, and determining which system administration activities are necessary. The following steps are carried out in this work package of the Realization phase:

1. Developing of system test plans

2. Defining the service level commitment

3. Establishing system administration functions

4. Setting up a Quality Assurance environment

5. Defining the design of the productive system

6. Defining system management procedures for the productive system

7. Setting up the productive environment

Quality Checks in the Realization Phase

At the end of Phase 3, the status of deliverables must be checked for completeness and accuracy. The Project Manager performs this internal quality check, which should not be confused with the external, independent Quality Assurance Audits after each phase.

The Quick Sizing Tool, or Quick Sizer helps you in reviewing the sizing you have determined in the Project Preparation phase.

Some of the things validated are the configuration of the Baseline scope, the global settings made for the R/3 System, and the organizational structure. Furthermore, it's

necessary to confirm the creation of archiving management, verify the existence of a finalized system, and ensure the creation of user documentation and training materials.

Lastly, the preparation for end user training needs to be gone through and approved.

Phase 4: Final Preparation

The purpose of this phase is to complete the final preparation of the R/3 System for going live. This includes testing, user training, system management and cutover activities, to finalize your readiness to go live. This Final Preparation phase also serves to resolve all crucial open issues. On successful completion of this phase, you are ready to run your business in your productive R/3 System.

In Phase 4, your end users go through comprehensive training. The last step will be to migrate data to your new system. In particular a going-live check is carried out and an R/3 Help Desk set up.

Fig. Xx: Main work packages of Phase 4

This phase builds on the work done in the previous two phases so that R/3 can be handed over to the individual departments for productive operation. This includes creating the user documentation and training the end users. The technical environment is installed for the productive system and the project managers make plans for going live, including the transfer of data from legacy systems and user support in the startup phase.

End-user training can be the area an organization spends the most time and money to complete, since proper training is critical if the project is to be successful. A high-level training plan should have been developed within the Project Preparation phase, but now more detail is added. The training program is set up according to the number of users, their location and their tasks. Once the site of the courses and the trainers have been chosen, the courses can be held.

To accelerate your training activities, you can purchase the R/3 Info Database (InfoDB), a blend of R/3, multimedia content, and tools. The R/3 InfoDB contains over 250 standard courses that we use in our SAP training facilities worldwide. These courses are available for multiple R/3 releases in up to 14 languages.

Computing Center Management System

As part of setting up the Computing Center Management System (CCMS), the system administrators are trained and the network administration, backup, archiving, and capacity monitoring systems are prepared and tested. Some of the tasks involved here

are configuring the printing facilities, conducting system volume and stress tests and conducting a going-live check.

Furthermore, R/3 logon groups are now set up, enabling you to provide application servers with improved response time for particularly important work groups using time-sensitive transactions.

Operation modes (resource configurations for each instance of the R/3 System) now need to be defined, with the times that the services are available. Alert monitors and backup schedules are set up. Productive system printing procedures and spool administration procedures are defined according to the Systems Operations Manual set up in the Blueprint Phase. Finally, the R/3 job scheduling system needs to be configured, as well as alert monitors and backup schedules defined.

Also in Phase 4, the system administration staff needs to be trained in a workshop session. Topics include troubleshooting, tape management, and user management, as well as escalation procedures.

Fig XX: R/3 technical implementation cycle

In Phase 4 you simulate the productive operation of your R/3 System, a step of great importance. The test plan contains all the most important situations that arise in the normal course of business:

- Testing conversion procedures and programs

- Testing interface programs

- Conducting volume and stress testing
- Conducting final user acceptance testing
- Developing a final go-live strategy

The test situations are selected on the basis of importance and frequency of expected use. Printers and other output devices are also included in the tests, in order to, for example, check print volumes or print layouts in printed invoices or purchase orders. End users are included in the planning and execution of the tests.

Volume testing also involves checking the critical parameters for specific business procedures, for example, adhering to a two-second average processing time to create a sales order.

CATT Test System

The Computer Aided Test Tool (CATT) can be used to automate test sequences for key business processes. The results are logged in detail and then reviewed. CATT is also used for quality tests during release changeovers and for simulating complete business processes.

System administration testing involves testing the activities of a System Administrator, such as managing job scheduling, administering corrections and transports, reacting to R/3 System alerts and logs.

Phase 4 also provides for the testing of the disaster recovery plan and of the procedures defined for the productive environment. If a third-party provider has been engaged for these services, their services and responsiveness can also be tested. Disaster downtimes are verified and details on de-escalation procedures are documented.

Now that the technical configuration for the productive system is finalized, plans are drawn up for transferring legacy data. At this point, the system settings (Customizing) and R/3 Repository objects are transferred from the quality assurance system, and automatic and manual data transfers to the productive system are carried out and tested.

GoingLive^{TM} Check

The GoingLive^{TM} Check involves an analysis of the major system components of the R/3 installation with regard to system consistency and reliability. For this, SAP experts log on your R/3 System via a remote connection, inspect the configuration of individual system components, and provide valuable recommendations for system optimization. By analyzing the individual system components before production startup, SAP can considerably improve the availability and performance of the customer's live system. In addition, the technical application analysis provides information on how to speed up the core processes within R/3.

In the second step of optimization the transactions with high resource consumption are searched for and necessary adjustments made. In the third step of verification, the changes from the two prior sessions are validated. This check is performed in the productive operation system.

After a system goes live, some fine tuning and eliminating of potential bottlenecks is still necessary. This is carried out four weeks after going live with the R/3 System.

Refining the Cutover

At the end of Phase 4, it is necessary to refine and validate the cutover plans generated in the Realization phase. Among other things, this includes tasks such as the reviewing of the runtime of test runs to estimate runtime for the complete data size. A conversion

checklist for transporting all changes into the productive system is provided for all the configuration settings to be imported.

At this stage, it is important to verify that required tasks have been successfully completed, for example, that the technical environment is in place, the cutover programs are ready and the application data is verified. Approval is now sought from project management and company senior management to start the cutover process.

Here you can also refer to the *Data Transfer Made Easy* Guidebook created especially for this purpose. It is located in the Knowledge Corner of the ASAP CD.

The help desk is particularly important in the first weeks after going live, but you will require help desk support throughout the productive life of your R/3 System. An internal help desk should be staffed and supported mainly by employees of the enterprise. Setting up a help desk involves, among other things, installing office and technical equipment and defining OSS users. Problems which cannot be solved by this internal help desk are forwarded to SAP via the **OSS system**.

As soon as you know when you will go live with the R/3 System or with new R/3 applications you should inform SAP. Thus you can ensure that SAP can provide optimal support throughout your going-live phase. For the last weeks before and first weeks after the go-live date, SAP offers the R/3 **GoingLive Customer Care Service**, accessible via SAPNet and OSS.

Phase 5: Go Live and Support

Now you are ready to go live with your productive system! Afterwards, the project team focuses on supporting the end users, for which training may not be completed. It is also necessary to establish procedures and measurements to review the benefits of your investment in R/3 on an ongoing basis. Key SAP Services to support you in this phase include

- The Online Service System (OSS)
- Remote Consulting
- EarlyWatch® Services

These services encompass a series of remote analyses of specific R/3 System settings, with recommendations for improving system performance.

Fig. Xx: Post go-live activities during productive operation

The last phase of the implementation project is concerned with supporting and optimizing the operative R/3 System, both the technical infrastructure and load

distribution as well as the business processes. Activities such as the following are carried out:

- Production support facilities are defined, for example, checking system performance on a daily basis
- Validation of business processes and their configuration
- Follow-up training for users
- Signoffs, etc.

This phase can also include a series of follow-up projects for adding new application components or automating and improving business processes, such as with SAP Business Workflow. The project manager monitors the fulfillment of the enterprise goals and the return on investment.

During Phase 5, the first EarlyWatch® session should be held, where experts from SAP analyze the system's technical infrastructure. The aim is to ensure that the system functions as smoothly as possible. The purpose of SAP's EarlyWatch® Service is to improve the performance of your live R/3 System by preventing system bottlenecks. The underlying concept of SAP EarlyWatch® Service is prevention: taking appropriate action before a problem situation develops.

Regular analysis of live R/3 Systems by teams of experts ensures that potential problems can be recognized and remedied at an early stage. This maintains system availability and performance at a high level. SAP EarlyWatch® measures the server, database, applications, configuration and system load. The results are recorded in a status report with recommendations for system tuning.

From early productive operation onwards, SAP EarlyWatch® provides regular performance and error analyses by evaluating statistical data on the various system components.

System and Release Upgrade

As part of R/3 system maintenance, new releases of the software, including new and enhanced application components and corrections, are shipped at regular intervals. You will normally need to verify or reconfigure some of the settings in order to use them.

AcceleratedSAP offers two kinds of roadmaps for moving the software forward to new releases or versions. One is the **Continuous Change Roadmap**, which provides ongoing support and assistance for the post go-live phase, and is described below. The second is the **Upgrade Roadmap**, which you can use to plan and carry out an upgrade to your R/3 System.

Special Release IMGs specific to your system configuration are available. You can read the online documentation for a new release directly from the IMG.

Fig. 31 (3-7): Generating a Release IMG

Upgrade and Release Changes

When you implement a new release, you can decide whether you want to keep working with the same functions within the selected components (Upgrade Customizing) or whether you want to implement the new functionality supplied for the existing release (Delta Customizing).

For legal changes affecting some country versions, in particular for the HR component, you can now see which legal changes have taken effect in your country and carry out the corresponding Customizing activities to have your system include these changes.

One of the strengths of the R/3 System is its ability to grow with the enterprise. Imagine you have to set up a new organizational unit, or a new plant, for example. The IMG can help, using preconfigured or existing organizational units as a basis. All you need to do is adjust the configuration until it matches your exact requirements, verifying the mandatory activities – to get a new, fully functional organizational unit, ready for accounting, purchasing, sales or warehousing, for example.

ASAP for Upgrades

AcceleratedSAP provides an Upgrade Roadmap and upgrade manuals to facilitate release changes and upgrade projects. The Upgrade Roadmap enables you to take a systematic approach to release changes and complements the available technical documentation.

Although implementing new versions of R/3 is carried out in the form of a new project, the project team will profit from their experiences during initial implementation. Many documents already exist and only need to be verified or extended.

Fig. 32: Phases in an upgrade project

In order to systematically carry out an upgrade project, the ASAP Upgrade Roadmap will generate a project plan with only the activities required. All other activities have either already been carried out or they are not relevant. As with the Roadmap for the initial implementation, there are descriptions of the individual tasks, and wherever possible, additional accelerators in the form of checklists, templates or examples. The technical documentation of the upgrades is extended via ASAP to include release-specific project management.

Release 4.0 of AcceleratedSAP contains the Continuous Change Roadmap, with standard activities necessary after the initial implementation. In this way, SAP provides ongoing support and assistance for post go-live activities. The tasks in that structure provide solutions for all known types of continuous change: Business changes, technology changes or changes in the user community.

Outlook: Global ASAP

R/3 is configured to satisfy the business and strategic needs of many large corporations. The strategic needs and historical IT environment of each of these customer has a significant effect on the way the R/3 System is implemented. One thing unites all these customers: their need to structure the implementation according to a global approach. *Global AcceleratedSAP* is designed to provide a uniform rollout concept.

Fig. Xx Global AcceleratedSAP Roadmap

The success of AcceleratedSAP as an implementation methodology has made it clear that global implementations can also be carried out in this way. Global ASAP builds on the existing ASAP methodology, using ASAP's structured procedure accelerators, modelling methods and tools. Project teams implementing R/3 on a global level will find additional methodological guidance and functionality in the Global ASAP Roadmap.

Basic Concept of Global ASAP

The basic concept of Global ASAP is to map all activities not taking place at a local level onto a special structure called the Global Roadmap. This roadmap is then optimally linked to the roll-out roadmaps for the projects at the local level. The goal is to have a preconfigured central system – in the form of one or many templates – and to roll it out locally as often as necessary.

A preconfigured global system, in the sense of a "global template" is the sum of all common group-specific customizing settings, models, individual templates, etc. These are included in one R/3 System as the sole source of reference for productive systems on the global (that is, corporate headquarters) and local levels (individual companies and plants).

Fig. xx: Rollout in local units of various sizes

In contrast to the existing AcceleratedSAP Roadmap, which only supports *one* implementation strategy, Global ASAP must support various R/3 implementation strategies, which may contain different methods situated at a very high level, such as:

- Creation of a global reference system with group-wide standards and partial functionality being defined at this level.

- Extensive mapping of all group units in the reference system, for the subsequent complete rollout
- Creation of a global template from a template system in order to roll back the software to the local units
- Implementation of distributed R/3 systems at the same time as the creation and the rollout of a global template

Furthermore, Global ASAP must also support strategies for implementing R/3 in various local and distributed R/3 systems, as well as support the planning and execution of concurrent projects. Almost all global customers are having to deal with the topic of distributed systems. For this reason, the Global Roadmap contains accelerators for distributed processes as well as test and productive system topologies. The prerequisite for an implementation strategy with distributed processes and global templates is the standardization of organizational units, groupwide processes and data.

Managing changes is critical in global implementations. This refers not only to the correct communication of change procedures but also to the implementation of change management procedures.

The communication of changes in global implementations basically involves the same issues as in regular ASAP change management. For this reason, please refer to the section on Change Management in the Chapter *AcceleratedSAP*.

Global Roadmap

The predefined Global ASAP Roadmap with its four phases offers you the following implementation benefits:

- Proven strategic decisions used as the basis for effectively implementing R/3 and its installation tools
- The development of groupwide implementation standards
- The rapid creation of a group reference system and a central productive system for setting up master records, for example.
- Long-term and cost-effective support and maintenance concepts

Phase 1: Global Program Setup

In the first phase, the global implementation program is set up. The workpackages *Program Management Preparation* (see below) and *Global Template Project Setup* contain administrative and project planning steps. The workpackage *Define Global Strategy* is structured to facilitate the holding of senior management workshops and follow-up studies on global implementation strategies.

The basis of global SAP strategy decisions is formed by carrying out a strategy determination study. This analysis includes modeling the organizational structure, defining the functional scope and key business processes, reporting requirements and the corresponding documentation. After this, the following elements of a global R/3 strategy need to be worked out:

- **System Architecture Strategy**

  Describes the IT standards and requirements based on the global system topology of the corporate group.

- **Distribution Strategy**

  Describes the distribution of system functionality in a system topology defined for this purpose.

- **Global Design/Configuration Strategy**

  Specifies the type and number of reference template systems to be developed.

- **Change Management Strategy**

  Describes the type and scope of new implementations and the way change procedures are carried out for users and hardware.

- **Gap Resolution Policy**

  Describes the solutions needed to bridge identified gaps in the functionality.

- **Implementation Strategy**

  Describes the number, type and way that global templates are rolled out and local systems implemented.

- **Center of Excellence Strategy**

  Describes the organization required for training, maintenance and support functions.

- **Customer Implementation Release Strategy**

  Examines and describes the procedure for upgrading the R/3 System specific to country and industry solutions.

- **Global Program Structure and Resource Strategy**

   Specifies the sequence of the implementation program, its organization and the corresponding allocation of resources.

The global R/3 strategy determination process is concluded with a Risk Analysis and a presentation to the enterprise's management, which then leads to the appropriate implementation strategy decisions being made.

Phase 2: Global Business Blueprint

The second phase of the Roadmap is characterized by the creation of the development systems and template contents. This includes the reviewing of the scope defined in the setup phase, the training of the template team, and the designing of the template itself.

The analysis of local and global requirements leads to a detailed model of the business processes necessary at the global level. The standardization of business processes and functions, as well as of best-practice cases is one of the main tasks of a global template. In this connection, the special requirements for business processes and functions running on distributed systems are an important consideration.

Phase 3: Global Realization

The work packages in this phase deal primarily with the creation of the global template together with the local units. This phase also describes the way to deal with group-specific customer developments at the global level.

In order for the concept of a global template to be successful beyond the rollout phase, it is necessary to ensure smooth maintenance handling. The step of G*lobal System Management* is therefore particularly important, since it contains the description of the system architecture to be implemented and the management of the systems involved.

A further important step is the creation of a Customer Competence Center. This organization should be able to carry out first-level support and coordinate all future developments. Global ASAP provides guidelines for the establishment of a Customer Competence Center.

Phase 4: Global Maintenance and Support

Besides administrative activities, the phases after the rollout emphasize the support of the local units. Phase 4 contains information on how to tune the local system and optimize business processes. Experiences gained during the rollout should now be incorporated back into the global template and be made available for later installations of R/3. A suitable rollback procedure is also included.

Global ASAP contains procedures for dealing with ongoing systems operations and the template upgrade procedure relevant to the customer's implementation release strategy.

Rollout Roadmap

The Rollout Roadmap has as its goal the creation of a local productive reference system and, in the case of distributed systems, the provision of a link to a central productive system in order to, for example, set up and maintain R/3 master records.

The Rollout Roadmap speeds up the implementation process in the local units, so that – depending on the enterprise's requirements – entire implementation series can be carried out. Redundant project activities can thus be pinpointed and avoided. The advantages of this roadmap are:

- The realization of groupwide implementation standards, through an efficient rollout in the local units
- A rollback procedure for the exchange of general experiences, which can then be incorporated into the template. In this way the changes are passed on to the local units quickly and comprehensively.

Program Management

The implementation of the R/3 System in large multinational corporations is a more time-consuming and complicated process than for mid-sized companies. For this reason , corporations need to observe certain procedures in order to control costs and avoid the delays that a lengthy rollout might entail. The following graphic shows an example of how *global templates* can be used to carry out a rollout. On the global level, that is, at corporate headquarters, it is necessary to co-ordinate all activities carried out during implementation and the maintenance/support phase after implementation.

Within Global ASAP, program management is regarded not as a project, but as the providing of official channels of support for the further development of the template, the ongoing work on group-specific standards and the rollout of the corresponding system functionality. These global activities need to be carried out and clearly defined centrally for all local systems.

Figure xx: Projects to Complete a Group Rollout

When local project activities are carried out, the program team at the global level is not actually responsible for the productive start of any systems at the local sites. This is the main task of the local project teams. Here it is important to differentiate between tasks carried out at the global and local levels, as well as to differentiate between resources used for development and resources used in the rollout itself.

The developments described here contain a global implementation strategy based on global templates and distributed system topologies. This is where R/3 customers will reap the greatest benefit. Within Global ASAP, further release strategies and enhancements containing new contents and functions which apply to the Global ASAP Roadmap will follow.

Glossary

(Note: terms in italics within a definition are also included with their own definition.)

ABAP

Advanced Business Application Programming: The programming language developed by SAP for application development purposes. All R/3 applications are written in ABAP.

ABAP Dictionary

Central storage facility for all data used in the R/3 System. The ABAP Dictionary describes the logical structure of application development objects and their representation in the structures of the underlying relational database. All runtime environment components such as application programs or the database interface get information about these objects from the ABAP Dictionary. The ABAP Dictionary is an active data dictionary and is fully integrated in the ABAP Workbench. It forms part of the *R/3 Repository*.

ABAP Program

Any program written in the ABAP programming language. Generally, there are two kinds of ABAP programs:

- **Dialog programs:** These are the actual R/3 programs (Basis system and applications). Dialog programs are transactions which conduct a dialog with the user across one or more screens. Depending on what the user enters, the dialog program reacts by presenting the next screen, displaying list output, modifying database tables, etc.
- **Report programs (ABAP reports):** Report programs read and evaluate data in database tables. When you execute a report program, the output can either be displayed on the screen or sent to a printer.

ABAP Workbench

SAP's integrated graphical programming environment which offers all the necessary tools for creating and maintaining business applications in the R/3 System. The ABAP Workbench supports the development and modification of R/3 client/server

applications written in ABAP. You can use the tools of the ABAP Workbench to write ABAP code, design screens, and create user interfaces. Furthermore, you can debug and test applications for efficiency using predefined functions, as well as access development objects and database information.

Accelerator

In ASAP, a collection of descriptive texts, how-to's, templates and examples on all subjects relating to the implementation of the R/3 System. Some are short information texts on a particular subject, others are longer texts such as white papers. There are also a number of predefined and empty templates or forms which you can use when carrying out your implementation.

Activity

See *ASAP activity* or *Customizing activity.*

Application Link Enabling (ALE)

A technology used in the development and operation of distributed applications. Its primary function is to support distributed, integrated installations of the R/3 System. It offers a controlled business message exchange, while maintaining data consistency across loosely coupled R/3 applications. The applications are not integrated using a central database but by means of synchronous and asynchronous communication.

Application programming interface (API)

An interface used by application programs to communicate with other systems, for example, for calling subroutines or programs on remote systems.

ASAP activity

Group of tasks in the Implementation Assistant. The results of an activity can produce certain deliverables. An activity can be carried out by one or more project team members. Several activities comprise a work package.

AQUA (Accelerated Quality Assurance Program)

See *Quality Review Program*.

Authorization concept

Concept that covers the structure and functions associated with authorization assignment and checking in the R/3 System. You use authorizations to protect the system from unauthorized or unwanted access.

Authorization profile

Element of the authorization system. An authorization profile gives users access to the system. A profile contains individual authorizations, which are identified by the authorization name and one or more authorization objects. If a profile is specified in a user master record, the user has all the authorizations defined in this profile.

BAPI

See *Business Application Programming Interface*.

Baseline Scope

In ASAP, the Baseline Scope refers to a certain level of configuration (usually 80% of the entire scope) which has been formally reviewed and agreed upon. The Baseline serves as a development platform that serves as the basis for further configuration and business process development.

Baseline Scope Document

The Baseline Scope Document defines the business processes and requirements that will be configured and played back during the baseline confirmation session.

Blueprint Generator

A component of the Q&A Database that gathers information from the CI Forms and presents the information in an organized document. The Blueprint Generator creates a Microsoft Word document called the *Business Blueprint* that includes a table of contents (listed by enterprise area, scenario, and process) and a logical assembly of all the CI forms.

BP Master List

See *Business Process Master List.*

Budget Plan

This plan is a subset of the Project Plan. It contains the projected costs by month, compared with the actual costs, and calculates the variance.

Business Application Programming Interface (BAPI)

Standard R/3 interface that enables you to integrate third-party software into the R/3 System. Business Application Programming Interfaces (also known as Business APIs or BAPIs) are defined in the Business Object Repository (BOR) as methods applied to SAP business objects, in order to perform specific business tasks. BAPIs are implemented and stored in the R/3 System as RFC-enabled function modules in the ABAP Workbench.

Business Blueprint

The main deliverable of the Business Blueprint phase. The blueprint document provides written documentation of the results of the requirements gathering sessions. The purpose of this document is to verify that a proper understanding of requirements has been communicated. The blueprint also finalizes the detailed scope of the project.

Business Engineer

The technical platform for business engineering that lets you model and configure R/3 applications from a business viewpoint. The components of the Business Engineer are designed to speed up the initial implementation as well as to support continuous engineering, and contain graphical methods for viewing, navigating, configuring, and testing the R/3 System:

- *R/3 Reference Model*, containing all business processes and the component hierarchy
- *Implementation Guide* (the "How-to" of R/3 Customizing)
- Industry-specific models.

Business Navigator

An R/3 graphical navigation tool for displaying the models contained in the R/3 Reference Model. There are various ways of accessing the Business Navigator (by views), intended to call up specifically the models and list displays of the R/3 Reference Model needed. By selecting a company-specific or project-specific filter, only the scope of the enterprise or project IMG will be displayed that was previously selected in the IMG.

Business Navigator Web

A Web-based graphical navigation tool which allows you to browse through a model in order to understand its structure and see how processes are related and organized on an enterprise-wide level.

Business object

Represents a central business object in the real world, such as a purchase order. R/3 business objects describe complete business processes. By invoking methods known as BAPIs (Business APIs), external applications can access and manipulate the business objects via the Internet, DCOM or CORBA.

Business object model

A type of model contained in the R/3 Reference Model used for describing business objects, including their attributes, methods, interfaces, and their relationships. Can be displayed in graphical form with the Business Navigator.

Business Process

See *Process*.

Business Process Master List

The Business Process Master List is a representation of the R/3 business processes and transactions defined in the project scope. The BP Master List is the central data repository that feeds all business process information to subsequent worksheets.

Business Process Procedure

An MS-Word document containing a prefilled template that provides the initial definition for developing User Procedures and training documentation. The final BPPs are developed during the Realization phase using the BP Master List, in which one Business Process Procedure represents one R/3 transaction.

Business scenario

See *Scenario*.

Business scenario questionnaires

Questionnaires designed to facilitate requirements gathering on specific business scenarios and their processes. These questionnaires use open-ended questions to promote the flow of information between consultants and the customer. During the requirements gathering sessions for a company's business scenarios, consultants capture company input in detail and adapt process models to reflect company needs.

CATT (Computer Aided Test Tool)

CATT is an SAP test tool for grouping and automating repetitive business transactions in test runs and text modules. It is included in the ABAP Workbench and enables you to bundle business transactions in reusable test procedures for automated testing.

Change Management

The handling of R/3 objects as they change from one environment to another. This movement may be from an enterprise and business perspective (where the organization or the way an enterprise makes business changes) or it may be from an IT perspective (where an organization changes systems or moves from one system release to a more current one). In AcceleratedSAP, a Change Management Roadmap is being developed.

Within ASAP Project Management, change management refers to the management of changes in scope, budget, timeline and resources.

Client

In commercial, organizational, and technical terms, a self-contained unit in the R/3 System with separate master records and its own set of tables.

Client copy

Function that allows you to copy a client within the same R/3 System or to another R/3 System. System settings determine what will be copied: Customizing data, business application data and/or user master records.

Client-dependent Customizing

Customizing which is specific only to one client. Settings in client-dependent tables are valid only in the client which was accessed during the logon process.

Client independent Customizing

See *Cross-Client Customizing.*

Component

Applications in the R/3 System are combinations of components. The components are held in a hierarchy, which can be displayed in the R/3 Reference Model, that describes the functional scope of the applications in a top-down fashion. The number of components and the number of levels an application has in the hierarchical structure depend on its functional scope.

Component hierarchy

Tool for displaying all application components in the R/3 System. The user interface of the component hierarchy resembles a file manager with a hierarchical structure. You can display either the standard hierarchy of applications delivered with the system or your company-specific applications. The component hierarchy can be displayed using the Business Navigator.

Component view

One of two navigation paths in the R/3 Reference Model. The component view shows the business application components of the R/3 System in a hierarchical structure. It provides access to the various models in the R/3 Reference Model (for example, processes and business objects). See *Process flow view*.

Concept Check Tool

A tool enabling you to carry out quality checks on the project preparation, technical infrastructure and R/3 configuration settings throughout the first two implementation phases of the R/3 project. In this way you are alerted to potential data volume and configuration conflicts that could lead to performance issues if not addressed.

Configuration cycle

A tightly controlled group of business processes that together constitute an optimal sequence and assembly that is used for configuring and developing the R/3 solution.

Conversion

The preferred AcceleratedSAP term for the process of establishing interfaces or methods to facilitate the transfer of large amounts of data to an R/3 System (as opposed to the term "data transfer").

Country-specific standard settings

In R/3, the settings in a client representing the legal and busines requirements of a country. SAP delivers the German version as standard. By executing a program to generate the "country version", the default settings reflect the country selected.

Critical activity

Each activity within the IMG has an attribute assigned to it, indicating whether the task is one where the project team should take particular care when reviewing or changing it. This is because SAP has determined that changing the settings for such critical activities after processing transactions could have serious consequences. Control on these activities during and after an implementation is very important.

Critical success factors

The key areas that have specific impact on the implementation process. They vary for every enterprise; typical factors include: executive sponsoring, change management and control, resources (appropriate, enough and committed), issue resolution, user involvement, clear objectives and scope.

Cross-application

Refers to tables, entities or processes that relate to more than one business application. Some examples of cross-application components are ALE and Workflow.

Cross-client Customizing

Customizing which is specific to more than one client. Settings in cross-client tables relate to all clients, regardless of which client was accessed during the logon process.

Customer Input form (CI form)

A standard template for gathering data on business processes. The customer input template can be modified to reflect the specific areas of an implementation project and is used in conjunction with the business process questions.

Customizing

Method in the R/3 System with which you install SAP functionality in your company quickly, safely, and cost-effectively, tailor the standard functionality to fit your company's specific business needs, and document and monitor the implementation phases in an easy-to-use R/3 project management tool. Customizing in the R/3 System is done via the Implementation Guide (IMG).

Customizing Cross-System Viewer

Tool for comparing Customizing objects. The Customizing Cross-System Viewer compares Customizing objects in two logical systems, where logical systems are clients either in the same R/3 System, or in different R/3 Systems.

Customizing object

Combination of Customizing tables/views that, according to business criteria, belong together and must therefore be maintained and transported together. You define a Customizing object via an IMG activity.

Customizing project

A Customizing project can be

- an implementation project: an implementation project includes all the functionality that is introduced for productive (live) use at one time.
- a release project: a release project covers all the work you do when you introduce a new system upgrade or release.

Cycle concept

In ASAP, a method to rapidly evolve and refine the Baseline scope into the finalized R/3 solution by using an iterative development and playback approach. There are multiple cycles within a project, each possessing an additional level of granularity, building upon one another, until the R/3 solution has been realized.

Data model

Conceptual description of data objects, their attributes, and the relationships between them. There are different types of data models that depend on the data structures to be defined. Example: relational data model.

Delta Customizing

Customizing activities that are required if you want to use new functions in existing business application components after a system or release upgrade. Delta Customizing covers new features for functions already used in live systems.

Development system

The R/3 System in which development and Customizing work is carried out. From here, the system data is usually transferred to the quality assurance system.

Dominant scenario

The primary scenario for an enterprise area which represents a customer's requirements. In the Q&Adb, the dominant scenario is used to capture the majority (representing the 80% case) of the customer's requirements and prevent having to duplicate similar requirements in many CI forms. This means that answers given to the dominant will be used as a reference for all subordinates. The same procedure can be used for flagging processes.

Early Watch Service

A diagnostic service for the R/3 System that supports R/3 implementation and productive operation. Support is provided through remote connection between SAP and the customer to help control and resolve problems such as bottlenecks.

End user documentation

Company-developed documentation for end users, to be used in training prior to going live as well as referenced for policy and procedures. *Business Process Procedures* can serve as the starting point for end user documentation.

End user procedure

In ASAP, a template that is provided for building user training materials for all different types of users. It is also used to create user documentation.

Enhancement

As opposed to the term "modification", an addition to an R/3 standard program made via a *user exit* provided for making such additions. An enhancement does not change R/3 Repository objects. With the ABAP Workbench you can develop any R/3 Repository Objects you might need. Enhancements are not affected by upgrading to a new release. See *Modification*.

Enterprise area

Part of a business area. An enterprise area is a grouping of organization units that have closely linked work and contribute to discrete business processes. The Enterprise Area is the first level of the Process Flow View within the Business Navigator. Examples are Procurement, Logistics, Organization and Human Resources, and External Accounting. Also called *Enterprise process area.*

Enterprise Area Scope Document

An Excel spreadsheet used to reference which SAP enterprise areas and scenarios a company will be implementing. It is used in initial scoping of the project, to assign business process owners, and also as a reference to begin the Business Blueprint.

Enterprise IMG

The Enterprise IMG is a subset of the SAP Reference IMG, generated by selecting the application components and countries to be implemented. You select the required countries and business application components from the Reference IMG, in order to create your Enterprise IMG. The Enterprise IMG contains all the activities that have to

be carried out to implement the application components that will be used in the relevant country or countries.

Event-controlled process chain (EPC)

A graphical display form used in the R/3 Reference Model to describe in detail the logical sequence of business functions and events carried out by the R/3 System. The EPC is the fourth level of the model and may be accessed by drilldown from the scenarios and processes.

IMG activity

Explanatory description of the steps needed to make a system setting. Activities in the IMG are linked directly to the related Customizing transactions that are used to make the system setting concerned. You can use the IMG activities to record notes that document your system settings. You can also base the recording of IMG project management (status) information on IMG activities.

IMG project

See *Project IMG*.

IMG project documentation

Tracking, controlling and monitoring an IMG project through attaching notes to the activities in the Implementation Guide. The notes may be kept in SAPscript or WinWord. They may be controlled using note types to determine visibility at the project level or overall.

Implementation Guide (IMG)

Tool for configuring the R/3 System to meet customer requirements. For each business application, the Implementation Guide explains all the steps in the implementation process, tells you the SAP standard (factory) settings, and describes system configuration work (activities). The hierarchical structure of the IMG reflects the structure of the R/3 application components, lists all the documentation to do with implementing the R/3 System, and contains active functions with which you can open Customizing transactions, write project documentation, maintain status information, and support the management of your R/3 System implementation. There are four levels in the IMG:

- The *SAP Reference IMG*, containing all Customizing activities in R/3
- The *Enterprise IMG*, containing the subset generated for an enterprise

- *Project IMG*: An subset of the Enterprise IMG for a particular implementation project
- *Upgrade Customizing IMG*: Based either on the Enterprise IMG or on a Project IMG. For a given release upgrade, it shows all the documents linked to a release note.

Implementation strategy

An approach to R/3 implementation. The strategy is based on long-term perspectives and includes all the steps planned across the whole enterprise in connection with implementing the R/3 System. Establishing the strategy is an essential part of project preparation and has a great impact on the sequence of implementation projects, in particular for global implementations. There are various implementation strategies: the "big bang" approach (all applications at once), phased (a few applications or business processes at a time), or by a plant or division, etc.

Instance

An administrative unit which groups together components of an R/3 System that provide one or more services. These services are started and stopped at the same time. All components belonging to an instance are specified as parameters in a common instance profile. A central R/3 System consists of a single instance which includes all the necessary SAP services.

Integration Test Plan

In ASAP, a test plan that combines the defined resources, time frames, scope and procedures for carrying out integration testing.

Integration Testing

The testing of a chain of business processes which flow together and/or cross functional boundaries. Integration testing also involves outputs, interfaces, procedures, organizational design, and security profiles. Its focus is on likely business events and high-impact exceptions.

International Demonstration and Education System (IDES)

A preconfigured R/3 System containing mature sample enterprises that use most of the processes in the R/3 System. Via a simple user guide and a range of master and transaction data, you can work through a multitude of business scenarios.

Issue

In ASAP, an unplanned activity, project, or business situation that affects business and project goals and delays schedules. An issue may result in changes to scope, budget, timeline, and resources.

Knowledge Corner

In the Implementation Assistant, a library of reference documents which are helpful during requirements gathering and configuration. The different areas are called Reference Corner (containing Customizing How-To's), Industry Corner (containing industry-specific information), Country Corner (containing country-specific information), Service Corner (containing, for example, the OSS Reference Guide) and Technical Corner (containing, for example, the Guidebook "System Administration Made Easy").

Mandatory activity

Each activity within the Implementation Guide has an attribute assigned indicating whether or not the task is one that the project team must revise because SAP standard settings may not be sufficient for particular business requirements. Focus on mandatory activities (for example, by creating a project view) supports a quick implementation.

Master data

In R/3, data relating to individual objects, which remains unchanged over an extended period of time. Master data contains information that is used in the same manner for similar objects. Examples would be the master data of a supplier containing name, address, and banking information, or the master data of a user in the R/3 System, containing the user's name, authorizations, default printer, etc.

Model

Graphical representation of any item of business significance in the R/3 System. Together, all models for all of the business applications included as standard are referred to as the R/3 Reference Model.

Modification

Change made to R/3 standard programs (that is, *R/3 Repository* objects) to meet the requirements of a particular customer. In the event of changes made by SAP, modified R/3 Repository objects have to be reviewed and, where necessary, adapted. See *Enhancement*.

Operation mode

Resource configuration for *instances* in the R/3 System. An operation mode defines the number of work processes for each service in an instance and the periods when the services are available. In R/3, operation modes support uninterrupted 24-hour operation and automatic switching of work process types.

Organization Structure Questionnaires

In ASAP, questionnaires designed to facilitate gathering requirements on the company's business mission, structure, and processes to allow for an initial mapping of the company's business to a proposed SAP organizational structure. See *R/3 Structure Modeler*.

Preconfigured Client (PCC)

The preconfigured client is a set of transport files consisting of the most frequently used U.S. and Canadian Customizing settings, such as the Chart of Accounts, Units of Measure, and Layout Sets. The basic processes of MM, SD, and FI/CO are up and running from the first day the client is transported.

Preconfigured Industry System

Preconfigured R/3 systems, each representing a specific industry. Each preconfigured industry system includes an Industry Model, the industry-specific Customizing settings, sample master data and industry-specific documentation.

Process

Activity describing the targeted creation or changing of business objects or conditions, usually representing one or more R/3 transactions. EPCs portray processes in detail. Processes show how individual functions in R/3 can be linked to solve a business task. All the functions belonging to a process can be mapped as an EPC.

Process flow view

One of the two ways of viewing the R/3 Reference Model (compare: *Component view*). The Process flow view provides process-oriented access to the scenarios and processes. It is arranged as a structure containing the levels enterprise areas, scenarios, and processes with functions (EPCs).

Process model

A type of model contained in the R/3 Reference Model used for describing R/3 processes and scenarios and how they are related to one another. You can display the process model in graphical form as EPCs and value chains. These models can also be

displayed and changed using third-party modeling tools (from such vendors as Visio, Intellicorp, and Aris).

Production system

The live R/3 System used for normal operations. Also termed "productive system" or "delivery system".

Project Charter

In ASAP, a document containing a clear definition of an enterprise's R/3 implementation goals, including: objectives, scope, implementation strategy, deadlines and responsibilities. The project Charter is drawn up by the project manager as part of the Project Preparation work package in Phase One.

Project documentation

See *IMG Project documentation*.

Project Estimator (PE)

A Pre-Sales tool that provides a baseline estimation of time, resources and costs associated with a specific R/3 implementation. The questions concern the scope, level of company and SAP team expertise, as well as level of complexity of business processes. Using the Project Estimator, you can generate the Enterprise Area Scope Document and a Project plan.

Project IMG

Acts as a filter on the Enterprise IMG and is used by the project team for processing the IMG activities in their implementation project. It is configured by country and application. You can create views of a Project IMG that limit the selection of IMG activities. These views are mandatory activities, optional activities, critical activities, and non-critical activities.

Project Management Planning Tool

A software program that is used to manage the project implementation process. It provides an outline of steps, durations, start and finish dates, resources, charts, etc. An example would be Microsoft Project.

Project Plan

In ASAP, an overall plan with three components: the *Budget Plan*, the *Resource Plan*, and the *Work Plan*.

Question and Answer Database

The Question and Answer Database is a repository of all questions and corresponding company responses that are required to define business requirements and to develop the business solutions in terms of the R/3 Reference Model and R/3 System. This includes business processes, technical, organizational, and configuration questions and answers that are the source for creating the Business Blueprint.

Quality Assurance Program

See *Quality Review Program*.

Quality assurance system

System in which final testing is carried out. Tested, stable development objects and Customizing settings (Customizing object parameters) are transported to the quality assurance system from the development and test system at defined times for final testing. From here, the system data is transferred to the *Production system*.

Quality Review Program

ASAP's Quality Review Program assists the executive management and project manager at customer sites in providing a second opinion of the implementation progress towards achieving the project goals. The scope of the review is to investigate the application, as well as technical and project management areas of the implementation. The review looks for good implementation practices while following a prescribed methodology. There are four suggested times to do a quality review during the implementation, however, they can also be determined by the Project Manager and Quality Auditor.

Quality check

A quality check occurs at the end of each phase in the Roadmap. This check is to be performed by the Project Manager and is intended to provide verification that all activities and tasks were performed, and produced complete and correct deliverables. After each quality check is performed, the next phase can be started. In contrast, the *Quality Review Program* also assesses the implementation risks and evaluates the implementation on an overall level.

R/3 Reference Model

Representation of the SAP R/3 System using graphical models. The R/3 Reference Model includes process models and data models/object models. Further models, for example, industry or enterprise-specific models, can be created by reduction using the R/3 Reference Model. The R/3 Reference Model is used to map an enterprise's requirements to R/3. It can be displayed using the Business Navigator or Business Navigator Web.

R/3 Repository

Central storage facility for all development objects in the ABAP Workbench. These development objects include ABAP programs, screens, and documentation. In addition to all the process models, data models, business objects and business object models, it also includes all their data and their relationships. The *ABAP Dictionary* forms part of the R/3 Repository.

R/3 Structure Modeler

An ASAP Accelerator which lets you graphically visualize the R/3 System organizational structures of your enterprise using the Structure Modeler Visio® template. Please note, you must be a licensed Visio® user to use this Accelerator.

Release note

In R/3, information containing all changes introduced in a system or release upgrade. These changes may include functionality that has been withdrawn, added, corrected or changed.

Release project (IMG)

An implementation project which focuses only on those activities which are relevant due to a new release. The list may be either a project or view reflecting *delta* or *upgrade Customizing* activities.

Release upgrade

Shipment and implementation of new and enhanced R/3 business application components. New releases are shipped at fairly large intervals. Before the new functionality can be used, the system settings and the conceptual design have to be adjusted.

Request Management

In R/3, functionality which supports the creation, control and transport of all Customizing and ABAP Workbench activities or objects between different R/3 Systems, for example, from a quality assurance system to a production system.

Resource Plan

This plan is a subset of the Project Plan. The resource plan outlines the resources assigned to the R/3 implementation. It displays both the planned number of workdays per month, the actual, and it calculates the variance between the two. It also contains a cumulative planned hours worksheet.

SAP Business Workflow

Covers technologies and tools for automated control and processing of cross-application processes. It helps coordinate those involved in a given process, the worksteps to be performed, and the data to be processed to increase productivity.

SAP Systems Operations Manual

A document that contains the SAP standard systems administration procedures and policies. This document should include detailed descriptions, persons responsible, and escalation management plans for all SAP systems management activities.

SAPoffice

R/3's own electronic mail and folder system which enables you to send documents internally and externally and to store them.

SAP Reference IMG

The Implementation Guide delivered in the standard R/3 version containing all IMG activities.

Scenario

A pattern for a group of business processes in the R/3 Reference Model. The EPC of a scenario shows the sequential and logical relationships between the processes that belong to the scenario.

A scenario can be seen as a chain of business tasks that share a common dependency on either time or an event. Event-driven scenarios are those that are based on a particular event, such as the receipt of a sales order. Time-based scenarios are those that are based not on a particular event, but on the passage of time. Such processes include

month-end closing, standard cost revaluation, check run, and possibly data reorganization.

Scenario process

See *Scenario*.

Scope

In ASAP, identifies the business boundaries of what is to be implemented in the way of R/3 functionality. 80% of this is defined in the *Baseline scope*.

Subordinate scenario/process

See *Dominant scenario/process*.

Task

In ASAP, a specific event to be performed by a project team member. Several tasks make up an activity in the Roadmap.

Technical design document

A document that contains the technical description of an R/3 implementation. This document includes physical system layout and distribution, printing infrastructure, SAP network topology, and systems management strategies.

Transaction

An executable R/3 process, such as creating a sales order or booking a goods issue, in the R/3 System. After logon, there are the following levels in the R/3 System: the main menu level, the application level, and the task level. A transaction is a task performed at task level. To execute a transaction starting at main menu level, you either navigate through the menus by choosing the appropriate menu options, or you enter the appropriate four-character transaction code in the command field and go directly to the task level.

Transport request

In R/3, a document for copying corrections from one system type to another system type. Corrections that have been released can be entered in a transport request. When you release a transport request, the transport is carried out. For example, corrections may be transported from a development system to a quality assurance system.

Transport Organizer

In R/3, a tool for preparing and managing transports which support the distribution of developments in the system group by the *ABAP Workbench* and Customizing Organizer, a tool for managing Customizing projects in the R/3 System.

Transport system

See *Transport Organizer*.

Upgrade Customizing

Comprises the IMG activities required to continue using the application components when a new release is installed. It bundles changes to functions already in productive use.

User exit

Point in R/3 at which a customer's own program can be called. In contrast to customer exits, user exits allow developers to access program components and data objects in the standard system. Upon upgrading, each user exit must be checked to ensure that it conforms to the standard system. There are User exits that use includes. These are customer enhancements that are called from the program. Secondly, there are User exits that use tables. These are used and managed directly via Customizing.

Value chain

In the R/3 Reference Model, an aggregated representation of business scenarios across enterprise areas. Value chains can be defined for a particular type of business or industry, showing the overall course of a business process across enterprise areas. On a highly aggregated level, the value chains show how business scenarios are linked. Industry-specific value chains also help customers to identify their business processes on an aggregated level.

View

Cross-application view of several tables in the ABAP Dictionary. When you create a table, you assign a key to it. However, the fields in the key may be inadequate for solving some problems, so you can generate a view from several tables or parts of tables.

A view-led Customizing transaction is used for configuring tables for simple business objects. View-led transactions group together all relevant fields for a Customizing object in a view.

View Cluster

Grouping of Customizing objects which logically or hierarchically are allocated to a complex business object.

Workbench Organizer

Tool for managing central and decentralized software development projects in the ABAP Workbench.

Workflow

See *SAP Business Workflow*.

Work Package

In ASAP, a group of activities designed to accomplish a major portion of a Roadmap phase.

Work Plan

A subset of the Project Plan, containing a detailed set of phases, workpackages, activities, and tasks from the ASAP Roadmap. This information is organized in a project management planning tool such as MS-Project. A Gantt Chart is usually contained within this work plan to view timelines, dependencies and resources.