



TSCM60

Order Fulfillment I

Part 1 of 2



THE BEST-RUN E-BUSINESSES RUN SAP

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- SAP R/3 4.6C
- 2002/Q3
- Material Number: 5005 7289

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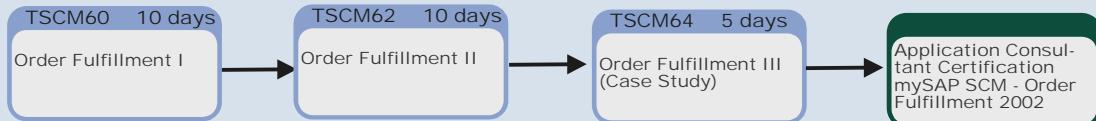
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Solution Consultant mySAP SCM - Order Fulfillment

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- **Participants**
 - **Consultants responsible for implementing Order Fulfillment with mySAP SCM.**
- **Duration: 10 days**



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User notes

- These training materials are **not a teach-yourself program**. They complement the explanations provided by your course instructor. Space is provided on each page for you to note down additional information.
- There may not be sufficient time during the course to complete all the exercises. The exercises provide additional examples that are covered during the course. You can also work through these examples in your own time to increase your understanding of the topics.

Required:

- **Business knowledge in the area of sales and distribution processing**



Contents:

- Course Goals
- Course Objectives
- Course Content
- Course Overview Diagram
- Main Business Scenario



This course will prepare you to:

- Execute the main business processes in sales and distribution processing
- Implement the main functions and Customizing settings for sales processing

-
- Course **Course Overview**
 - Course **SAP Overview**
 - Course **Processes in Sales and Distribution**
 - Course **Sales**
 - Course **Mini Case Study**
 - Course **Certification**
-

- This Consultant Training contains different courses each discussing a specific topic. Each single course is divided into different unit.

Unit 1 **mySAP.com**

Unit 2 **Navigation**

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- Workplace Release 2.11
- Date: February 2001
- Material number: 5004 3844

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- | | |
|--------|--|
| Unit 1 | Enterprise Structures in Sales and Distribution |
| Unit 2 | Overview of Sales Processes |
| Unit 3 | Master Data in Sales and Distribution |
| Unit 4 | Sales From Stock - Available |
| Unit 5 | Sales From Stock - Shortage |
| Unit 6 | Make-To-Order |
| Unit 7 | Returns and Credit Memo Processing |
| Unit 8 | Reporting and Analysis on the Processes in Sales and Distribution |
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- This Consultant Training contains different courses each discussing a specific topic. Each single course is divided into different units.

Unit 1	Introduction	Unit 8	Special Business Transactions
Unit 2	Enterprise Structures in Sales	Unit 9	Incompleteness
Unit 3	Sales Order Processing	Unit 10	Partner Determination
Unit 4	Sales Document Type	Unit 11	Outline Agreements
Unit 5	Item Category	Unit 12	Material Determination
Unit 6	Schedule Line Category	Unit 13	Free Goods
Unit 7	Data Flow		

Appendix

-
- Unit 1 **Sales to Employees**
 - Unit 2 **Bills of Material**
 - Unit 3 **Material Determination**
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- Workplace Release 2.11
- Date: February 2001
- Material number: 5004 3844

Unit 1 **mySAP.com**

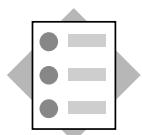
Unit 2 **Navigation**

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- Workplace Release 2.11
- Date: February 2001
- Material number: 5004 3844

Contents:

- **Evolution of Business and SAP Product Strategy**
- **mySAP Solutions**
- **mySAP Components**
- **mySAP Technology**
- **mySAP Services**



At the conclusion of this unit, you will be able to:

- **Describe the evolution of the SAP Product Strategy**
- **Describe the relationship between mySAP.com and R/3**
- **Describe a few aspects of the mySAP.com E-Business Solutions**
- **Describe a few aspects of mySAP Technology**
- **Describe mySAP Services**



- The project team would like to understand the relationship between R/3 and mySAP.com E-Business Solutions

Evolution of Business

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Enterprise Resource Planning



Cost reduction and efficiency through integration of business processes

Inter-Enterprise Co-operation



Improved effectiveness through cooperation along the supply chain

Collaborative Business



Value creation through collaboration within business communities

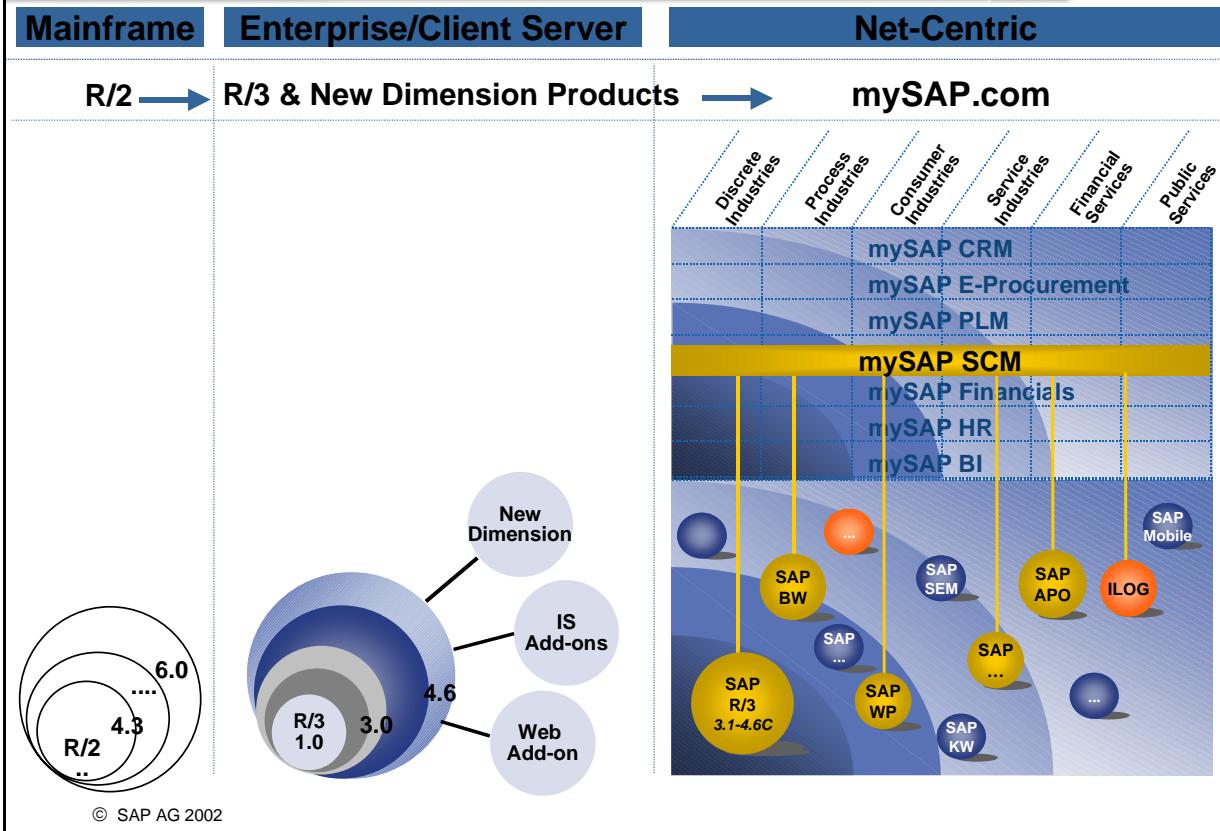
The Internet Revolution

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- Evolution in the world of business, that has been seen recently:
- In the first companies were looking at Cost reduction and efficiency through integration of business processes, so called ERP functionality, the goal of which was to increase efficiency within a company.
- Then the next generation of “new dimension” products appeared taking functionality out of the company, to bring value through extending the supply chain with EDI or looking at external information with BW.
- The internet has driven to a collaborative environment where value is created through collaboration within business communities.

Evolution of the SAP Development Strategy

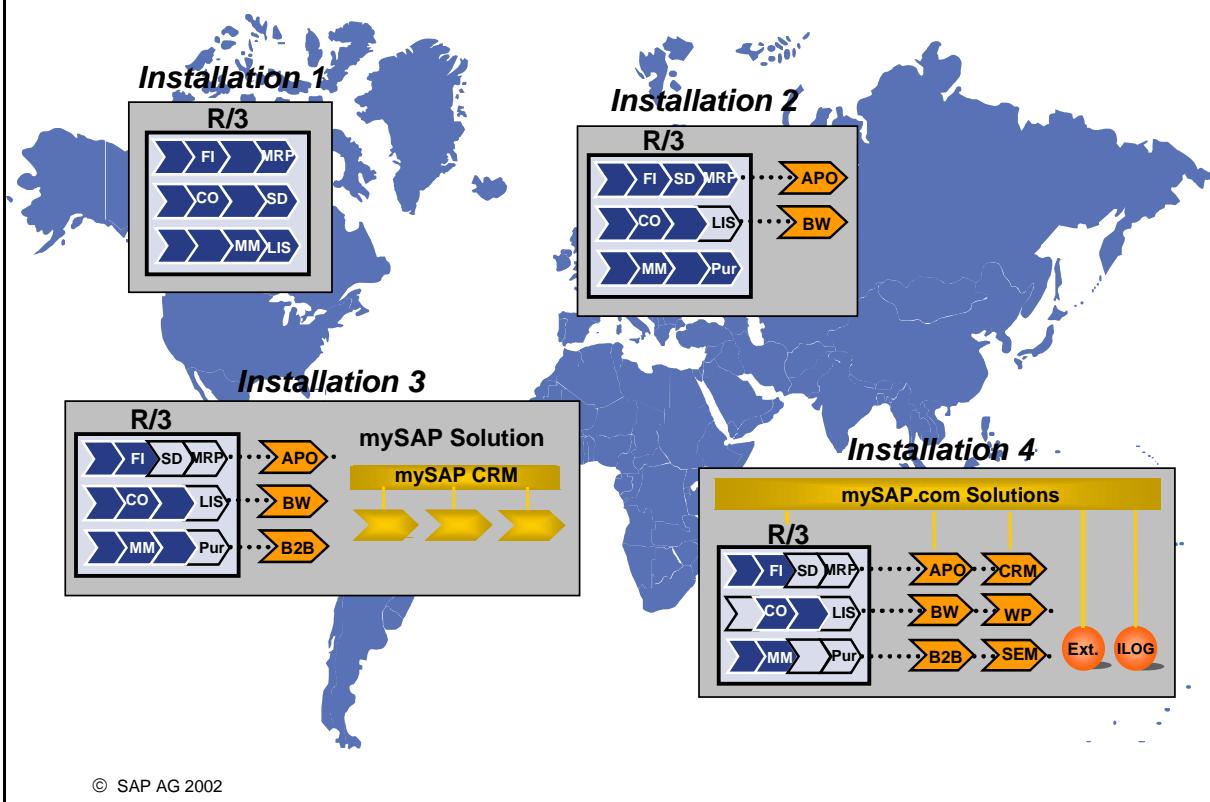
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- Integration in the “old” economy meant integration of business processes:
 - Enterprise resource planning (ERP) made SAP R/3 a standard worldwide.
 - Since 1996 SAP R/3 has been capable of doing e-commerce.
 - Future technology was incorporated in SAP products so customers would be prepared for future developments without having to perform system changes.
- Integration in the “new” economy requires an integration of processes that extends beyond the organization’s borders, allowing companies to collaborate.
 - Collaboration
 - More than cooperation
 - Processes in which many users are involved can be carried out simultaneously in one step

SAP Supports All Development Strategies

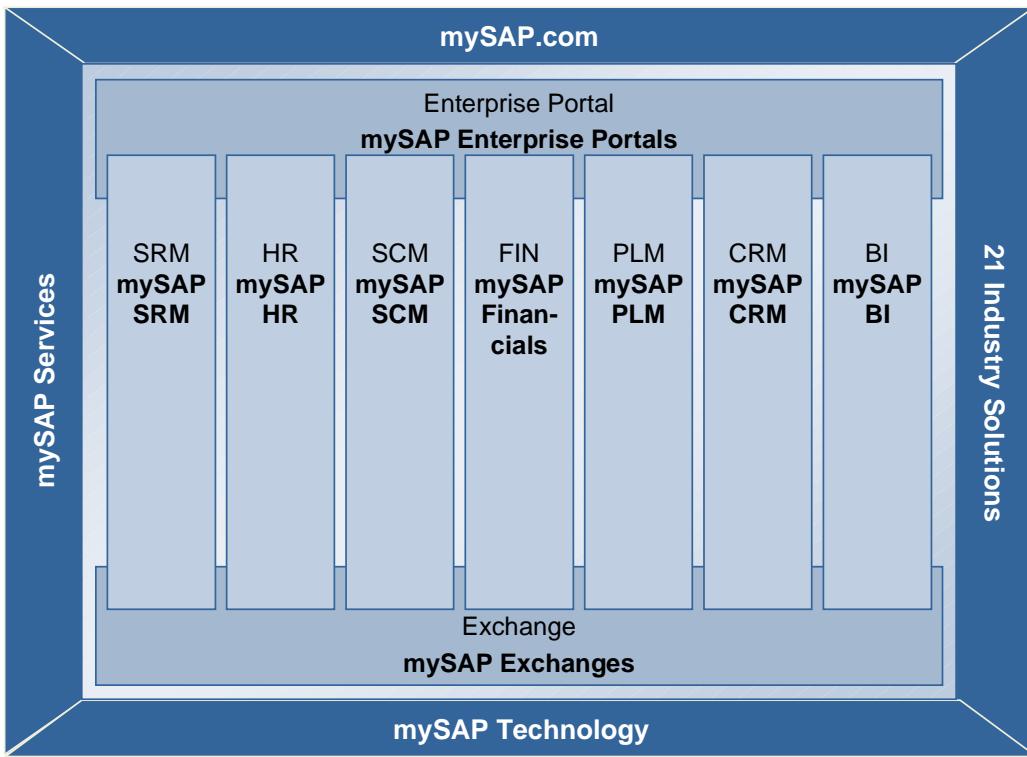
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- R/3 is an integral part of the mySAP.com e-business platform.
- A key aspect here is ensuring a good return on investment for SAP customers.
- Customers decide on an implementation strategy that is right for their business needs.

Value Creation with mySAP.com E-Business Solutions

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- SAP does not only offer cross-industry solutions, but has also clustered its components into **21 industry solutions**, offering additional industry-specific functions.
- The mySAP.com e-business platform is built on **mySAP Technology**, an open, scalable infrastructure, which allows integration within heterogeneous environments (SAP and non-SAP components). mySAP Technology includes the SAP Web Application Server, the portal infrastructure and the exchange infrastructure.
SAP Web Application Server: Supports native Internet technology (HTTP, XML), JAVA and ABAP.
- Along with its solutions SAP provides the according services: **mySAP Services**, to ensure that customers receive maximum return on investment from mySAP.com.
mySAP Services include:
 - Business solutions consulting (design of business solutions, project management, business improvement)
 - Solutions operations services (technical implementation and ongoing optimization)
 - Education
 - Support (24x7 support, EarlyWatch, GoingLive)

	ERP	E-Business
Business Model	<i>Enterprise centric...</i>	<i>...extended and collaborative</i>
Processes	<i>Integrated, core within enterprise...</i>	<i>...and collaborative, beyond company boundaries</i>
Goals	<i>Internal process optimization...</i>	<i>...and value creation through collaboration</i>
Architecture	<i>Integrated system...</i>	<i>...and open integration platform</i>

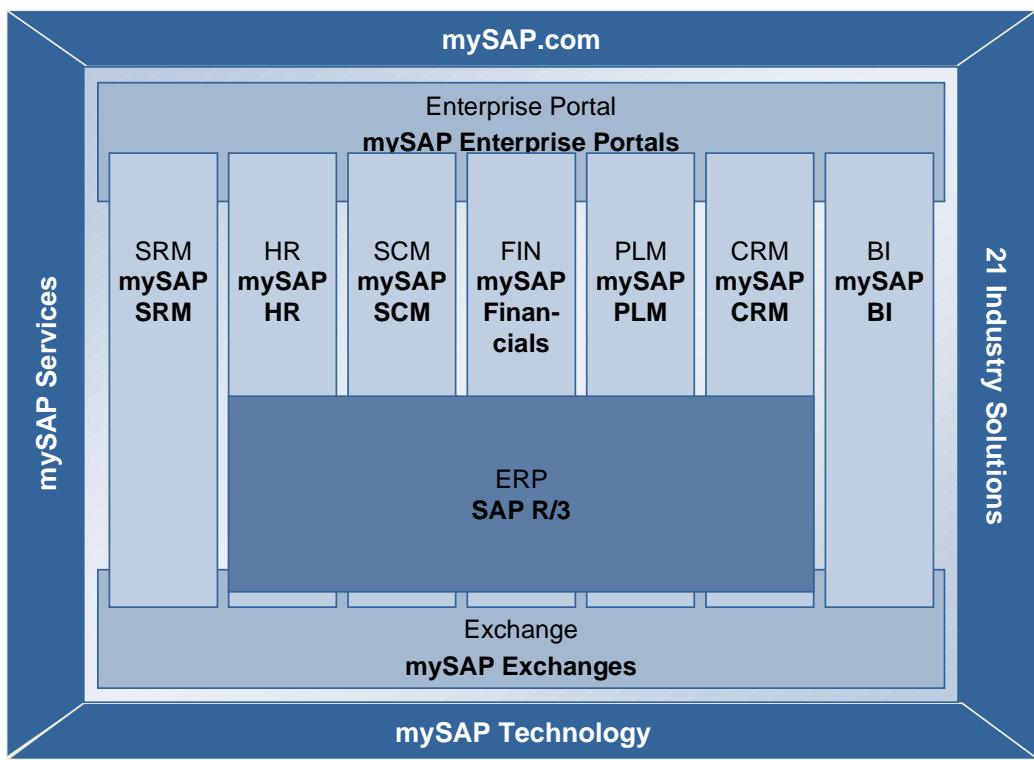
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- To understand what ERP is, we need to define what is ERP functionality and what is e-business functionality.
- ERP offers enterprise centric functionality (general ledger, payroll, order entry) to integrate core, internal processes
 - Value is generated via internal efficiencies and optimization
- E-Business builds on ERP functionality and offers additionally
 - Extended collaborative functions (e-recruitment, crm campaign management etc)
 - Value is generated through collaborative possibilities and
 - There is easy integration into heterogeneous landscapes
- ERP is **NOT** mySAP Financials and mySAP HR.
 - There is basic HR and Financials functionality, but mySAP FI and mySAP HR offer much more.

	ERP	E-Business
Business Model	<i>Enterprise centric...</i>	<i>...extended and collaborative</i>
Processes	<i>Integrated, core within enterprise...</i>	<i>...and collaborative, beyond company boundaries</i>
Goals	<i>Internal process optimization...</i>	<i>...and value creation through collaboration</i>
Architecture	<i>Integrated system...</i>	<i>...and open integration platform</i>
SAP Offering	SAP R/3	mySAP.com and mySAP.com Solutions

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- For ERP functionality, SAP offers SAP R/3.
- For E-Business SAP offers mySAP.com.
- SAP R/3 is naturally included in mySAP.com.
- In general, e-business can include all commercial activities – from internal processes within the enterprise to collaborative processes that integrate external companies. Enterprise-centric processes are an important prerequisite for collaborative processes.

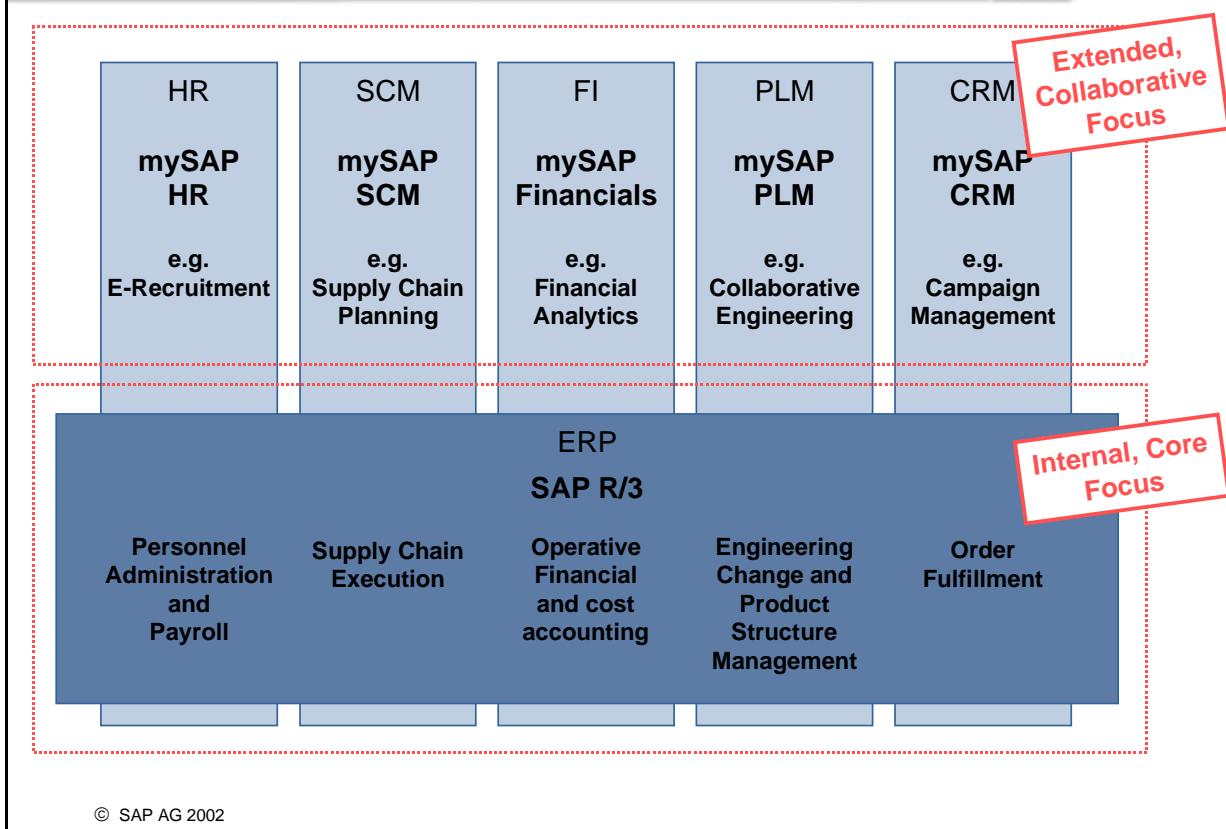


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- ERP functionality is a fundamental building block of all e-business solutions.
- SAP leads the market for ERP solutions, developed from years of industry experience with thousands of customers.

Enterprise Centric and Collaborative Processes

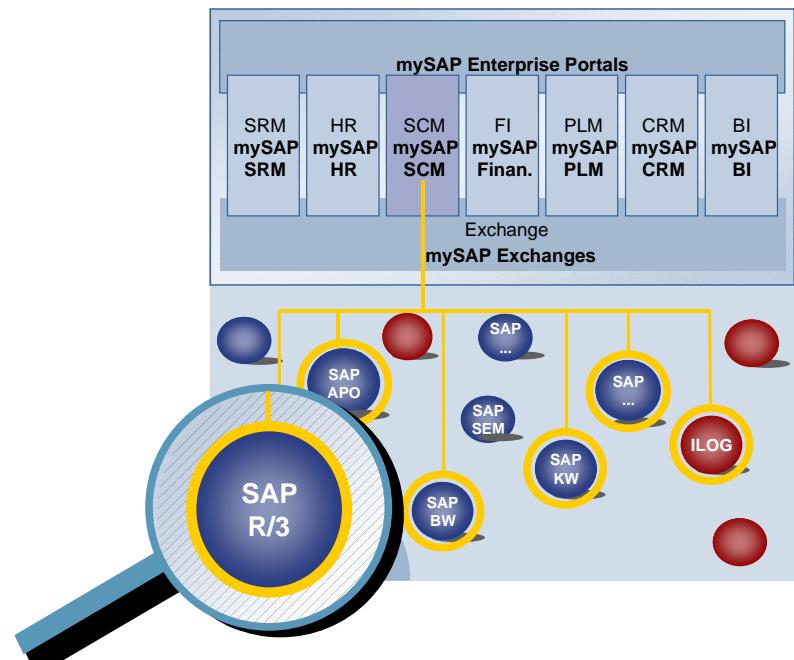
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- This slide outlines some of the key functionality available in SAP R/3 and examples of extended functionality, which is available when the solution (such as mySAP SCM or mySAP HR) is purchased.
- So for example in the area of HR, SAP R/3 provides functional coverage of much of the “standard” enterprise centric processes, whereas with mySAP HR, there are many additional benefits in the collaborative environment, such as E-Recruiting.
- Here it is important to differentiate that ERP is not just financials and HR, it contains elements from all core business processes, including elements of CRM, PLM, and SCM.

The R/3 Component within mySAP.com

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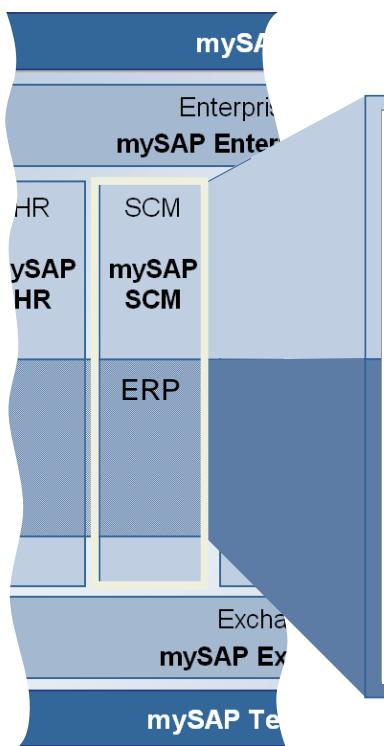


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- All the above mentioned mySAP solutions englobe various components. One of the main components is SAP R/3 (or SAP R/3 Enterprise).
- The blue components are SAP products, the red ones aren't. ILOG for example is a third-party product providing the optimization algorithm for APO.

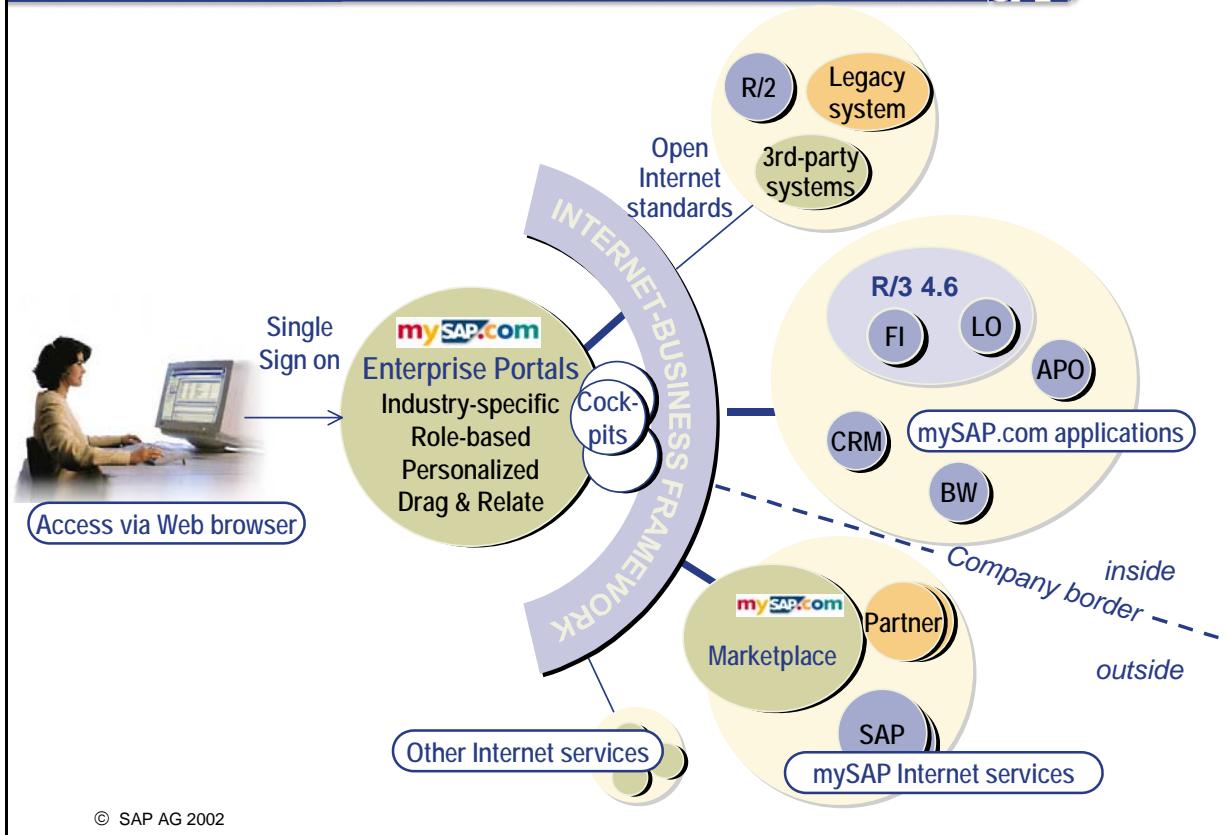
Example: SCM Processes

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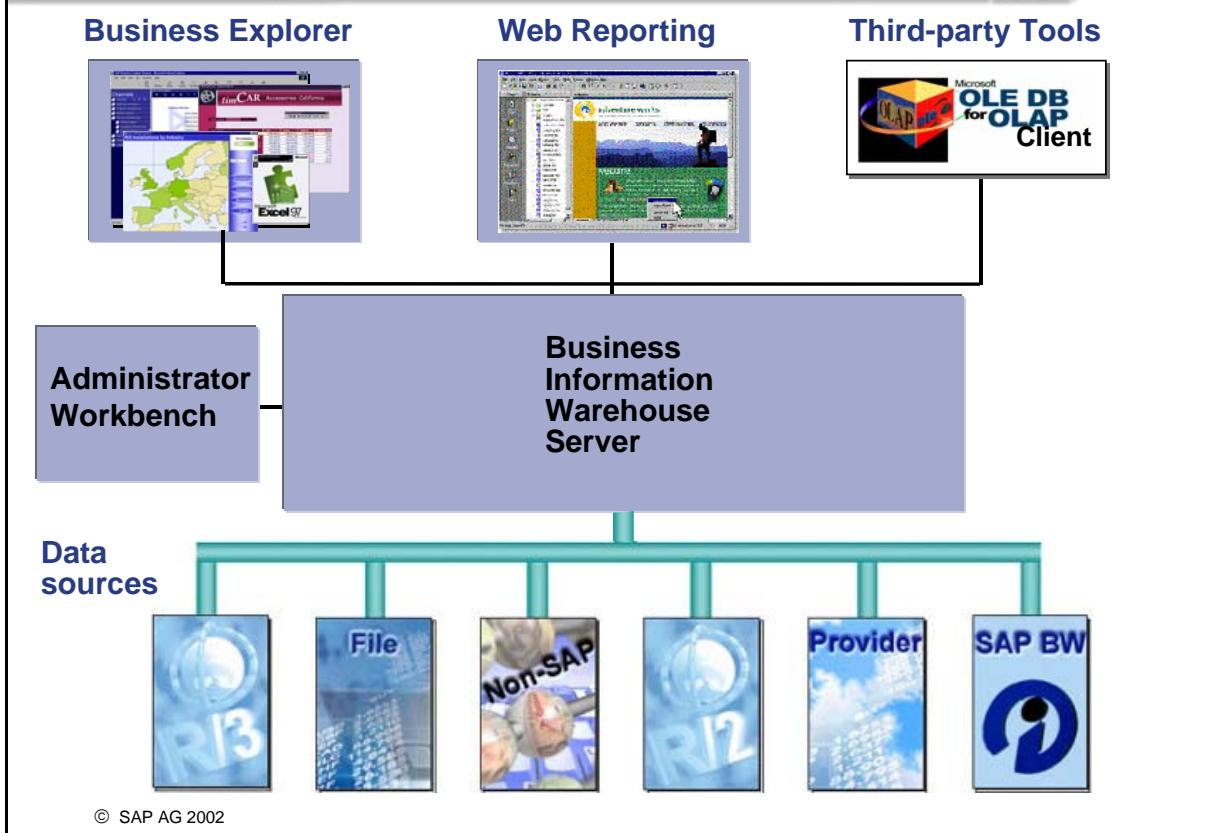
- Above you find an example of the difference between ERP and the corresponding mySAP.com solution.



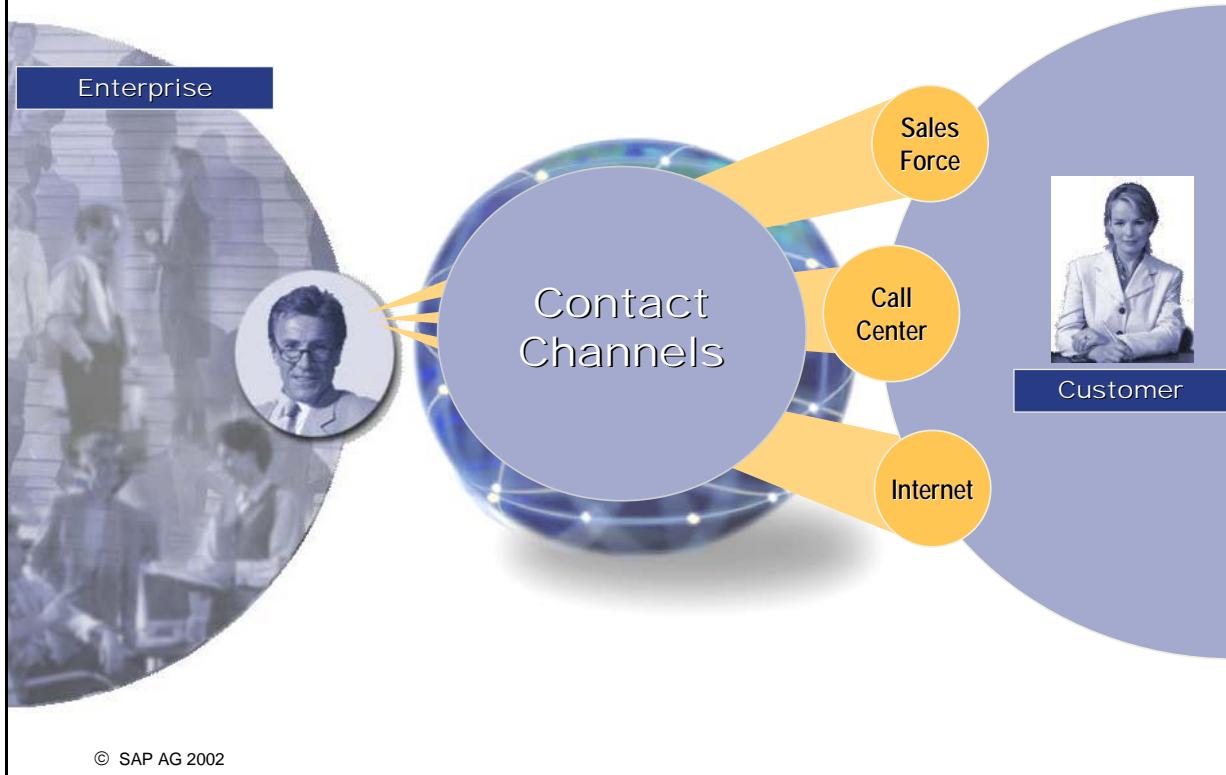
- Once they log on to their Enterprise Portals, users can access a wide range (depending on their role in the organization) of applications, such as R/3, legacy systems, mySAP Business Intelligence (mySAP BI) and mySAP CRM. They can also use various Internet services..

SAP BW Overview: Architecture

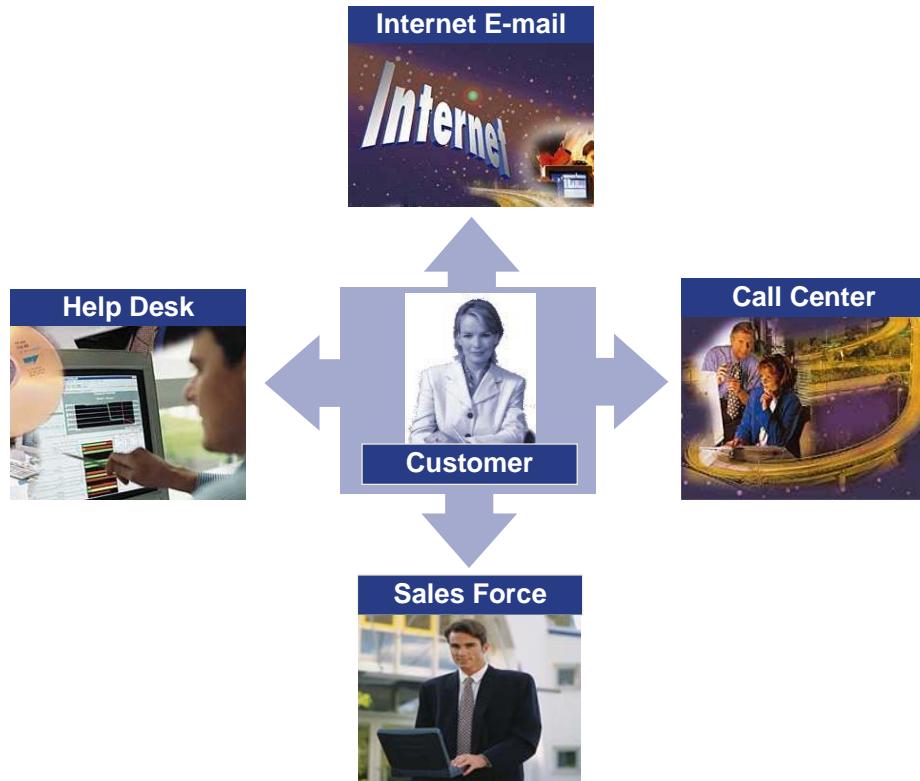
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- The SAP Business Information Warehouse (SAP BW) can extract and use data from a variety of sources including R/3 and R/2 systems, non-SAP systems, commercial data services, and other SAP BW systems.
- The BW Server provides all essential tools for modeling, extracting, converting, compressing, storing, and accessing data.
- To access data in SAP BW, users can use the SAP Business Explorer, a standard Web browser, or presentation tools from other suppliers.



- Generally the sales force maintains direct contact with the customer. Members of the sales force can enter information about customers using their laptop computers.
- The **Call Center** is a central location in the enterprise where employees receive and process incoming calls and e-mail.
- Companies frequently use the **Internet** for purchasing and sales activities. Two distinct scenarios come into play here:
 - Business-to-Consumer (B2C)
 - Business-to-Business (B2B)

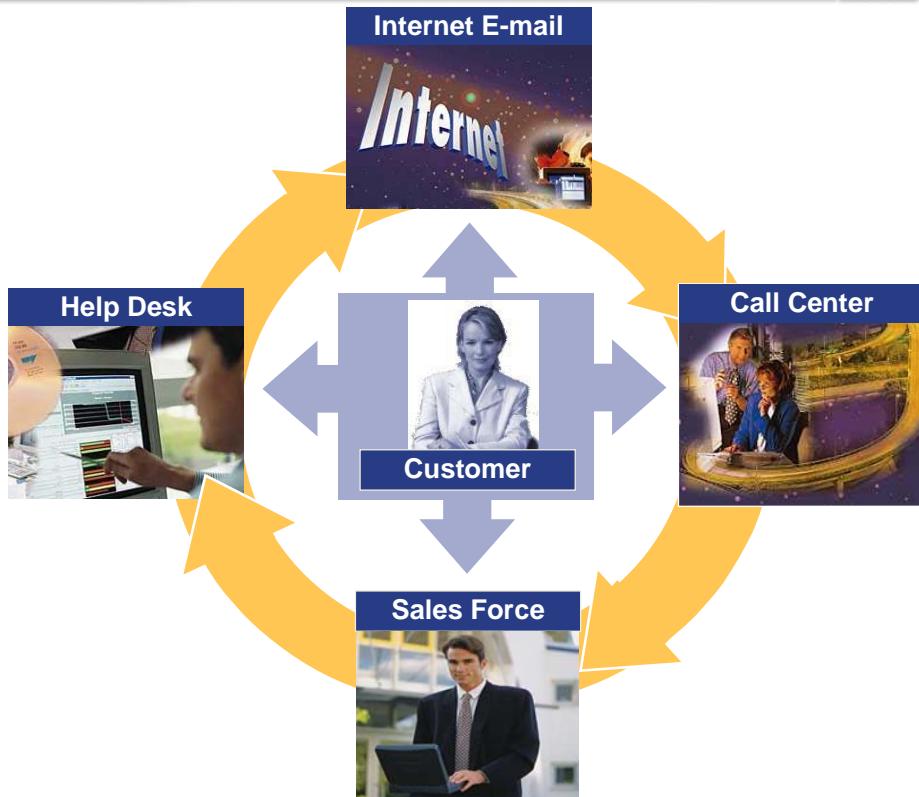


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- Different departments of an enterprise capture incoming customer information using different methods. As a result, some individual departments have different information at their disposal. This makes it very difficult to achieve optimum customer service..

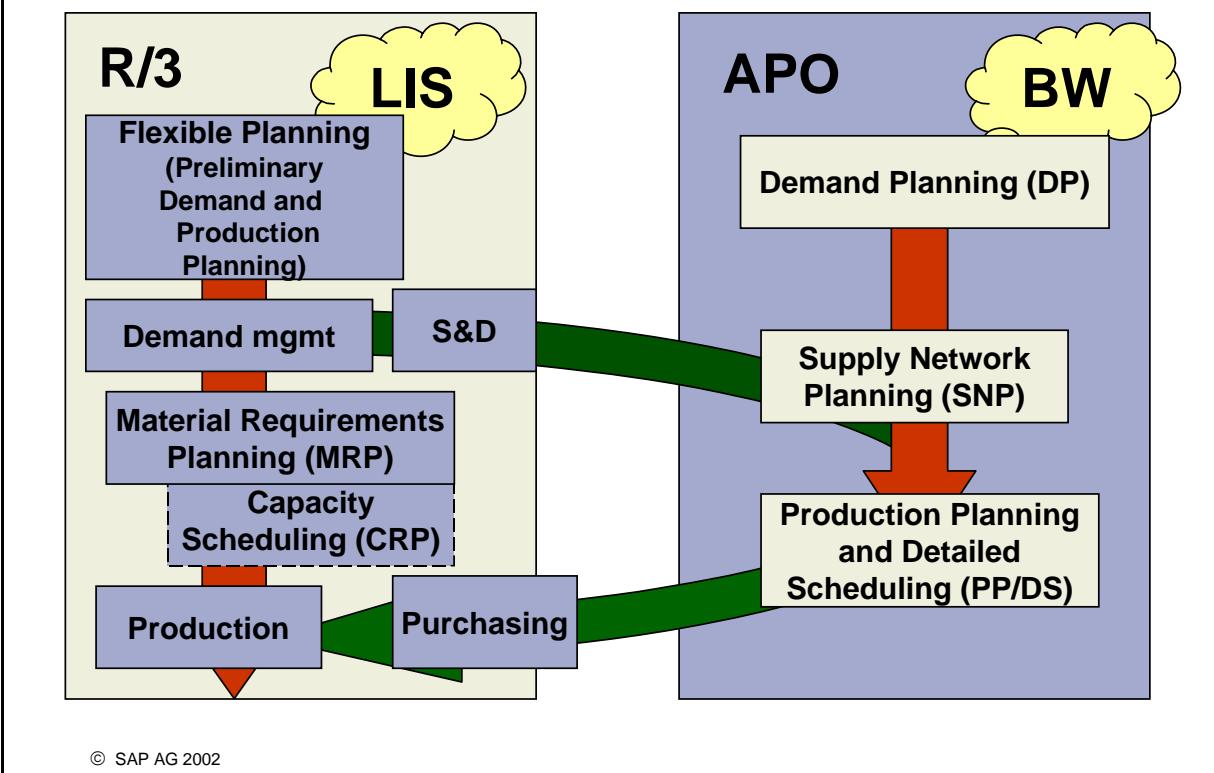
mySAP CRM Overview: Today

SAP



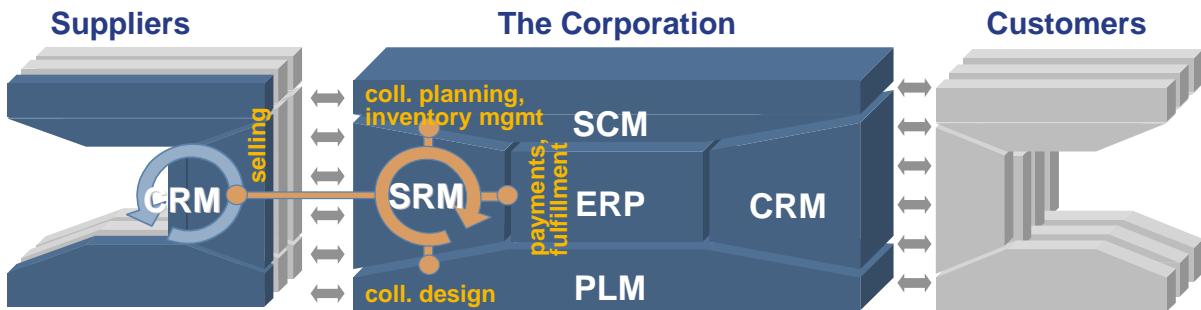
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- With the mySAP Customer Relationship Management (mySAP CRM) solutions – CRM Mobile, CRM Interaction Center, and CRM Internet Sales – information about a particular customer is managed centrally and can be accessed from all areas (sales force, call center, and so forth). Sales force employees thus have the same level of knowledge about the customer and can guarantee optimum customer service..

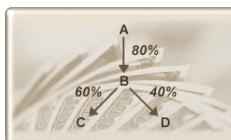
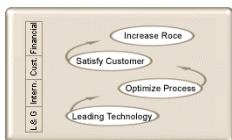


- You perform a forecast in APO Demand Planning based on aggregated historical data from SAP R/3 or the SAP Business Information Warehouse (SAP BW). The aggregated historical data is uploaded from R/3 or SAP BW through the APO Administrator Workbench. As a result of Demand Planning, in APO you can generate **planned independent requirements** (release of forecast to APO Demand Planning), which are used for characteristics-based forecasting, independent of sales orders.
- **Sales orders** and planned independent requirements are the starting point for Supply Network Planning (SNP) and Production Planning and Detailed Scheduling (APO-PPS) in APO. In addition, existing warehouse stock flows into scheduling. Sales orders are created in the R/3 System (Sales and Distribution), however, the availability check can occur in APO. Depending on the requirements strategy in APO, you consume the sales orders with the planned independent requirements in APO.
- In **Supply Network Planning**, you perform rough-cut short-term or medium-term scheduling across the entire supply chain. Here stock transport requisitions (for planning stock transport) are generated between distribution centers and plants; however, with Supply Network Planning you can also generate direct planned orders (for planning in-house production) and purchase requisitions (for planning external procurement) in a long-term planning interval in the production plant.
- With **Production Planning and Detailed Scheduling** you create planned orders and purchase requisitions directly in the production plant in a short-term planning interval.

AUTOMATION OF CROSS COMPANY PROCESSES



- **Designed to integrate with**
 - any SCM, PLM, CRM or ERP solution
 - with mySAP.com and SAP R/3
- **Can leverage the latest technology**
 - mySAP Exchanges for process-centric collaboration
 - mySAP Enterprise Portal for user-centric collaboration



Strategy Management

Performance Measurement

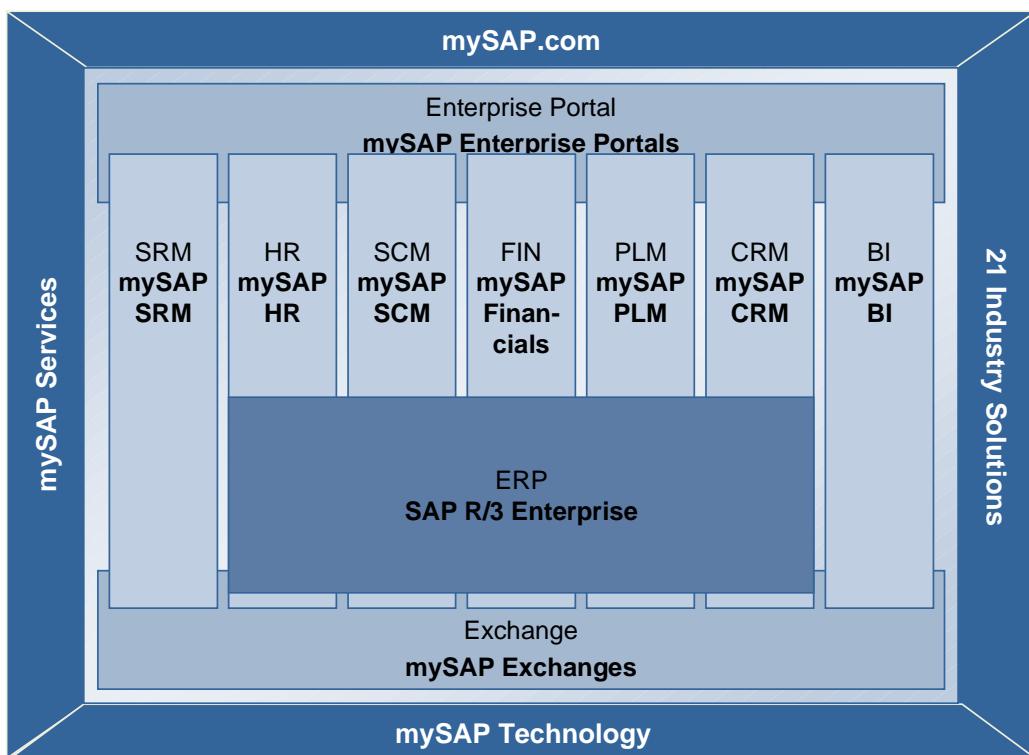
Business Consolidation

Business Planning

Stakeholder Relationship Management

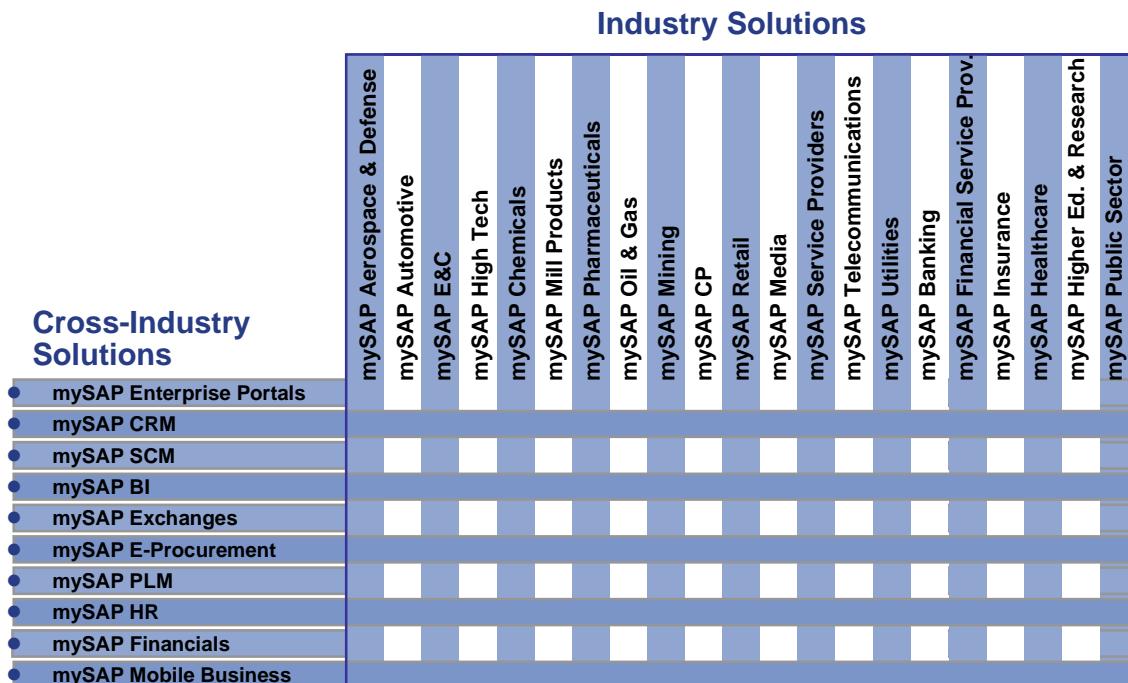


SAP BW & KW



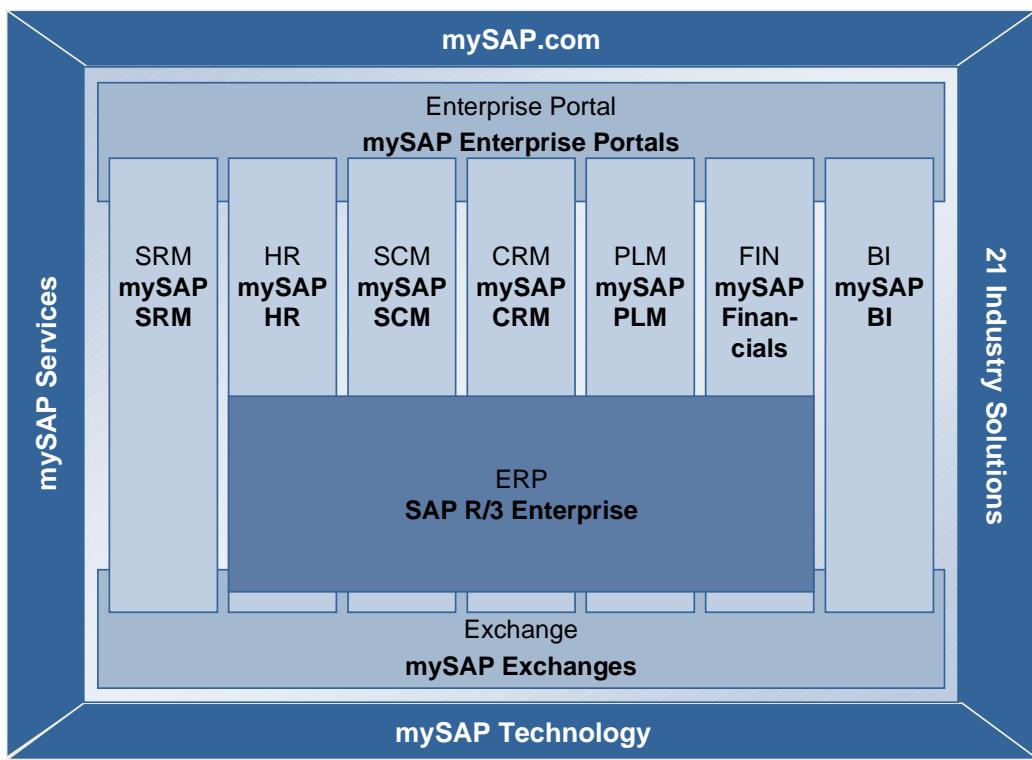
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- The mySAP.com e-business platform can be tailored to suit the requirements of any industry. Industry solutions benefit from the substantial industry experience SAP has acquired over decades.



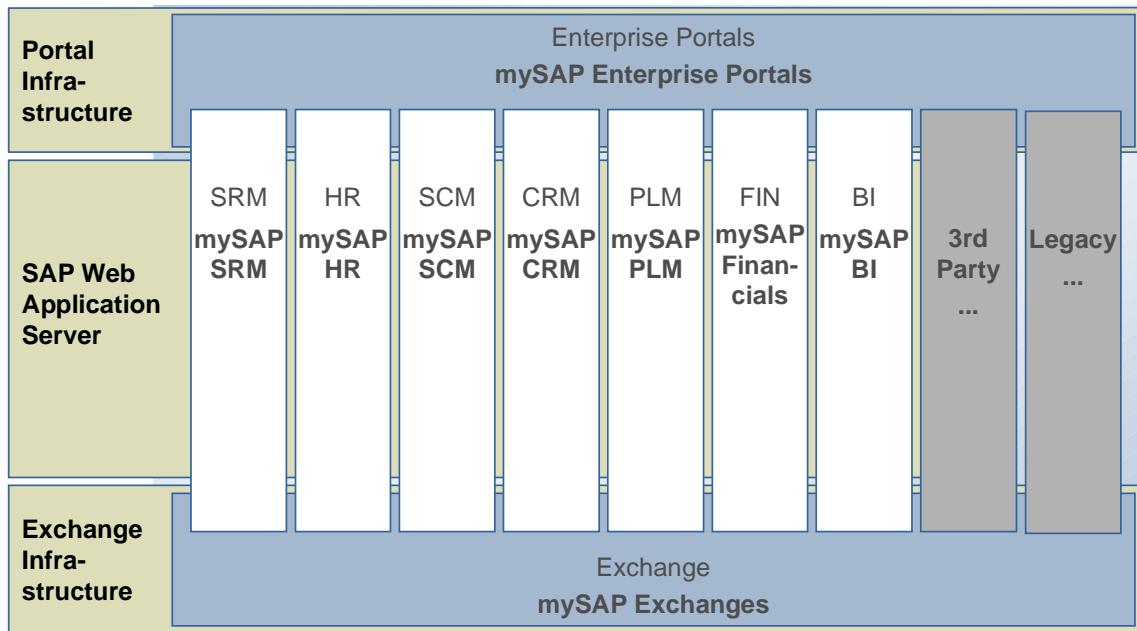
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- Tailored industry solutions make use of the cross-industry solutions, infrastructure, and services as well as custom-developed industry expertise.
- For example, all industry solutions can be linked to mySAP Exchanges, accessed via a mySAP Enterprise Portals solution, be seamlessly connected to a mySAP CRM solution.
- All industry solutions are packaged and configured with detailed features based on industry best practices.



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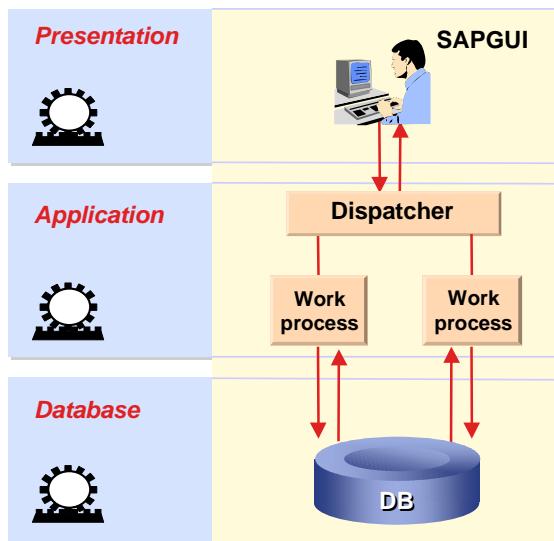
- The evolution from SAP R/3 and other software components to mySAP.com reflects the ongoing adaptability and flexibility of mySAP Technology, SAP's open integration infrastructure. **mySAP Technology** – together with the integration of the Internet – enables collaborative business today.



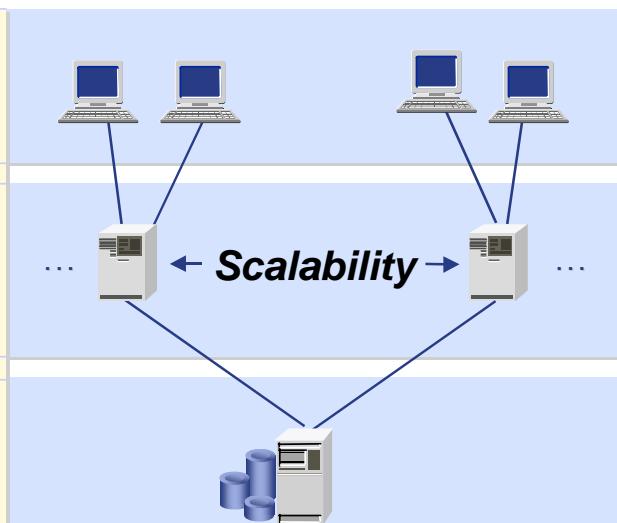
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- mySAP Technology is a native-Web infrastructure for reliable, mission-critical e-business solutions
- The key building blocks of mySAP Technology are:
 - **Portal infrastructure:** Platform for user-centric collaboration empowering the individual
 - **Web Application Server:** Platform for application components providing services based on open standards
 - **Exchange infrastructure:** Platform for process-centric collaboration driving end-to-end business processes
- This is complemented by infrastructure services including security, globalization, and IT landscape management.
- mySAP Technology provides one common, message-based infrastructure for both integration within and beyond company boundaries.
- The SAP Web Application server additionally allows the development and deployment of 3rd party and custom applications. There are good incentives for companies to deploy their business app on the SAP Web AS. Due to its reliable robust technology and seamless integration, it is suited for the deployment of mission critical business applications.

Software-Oriented View

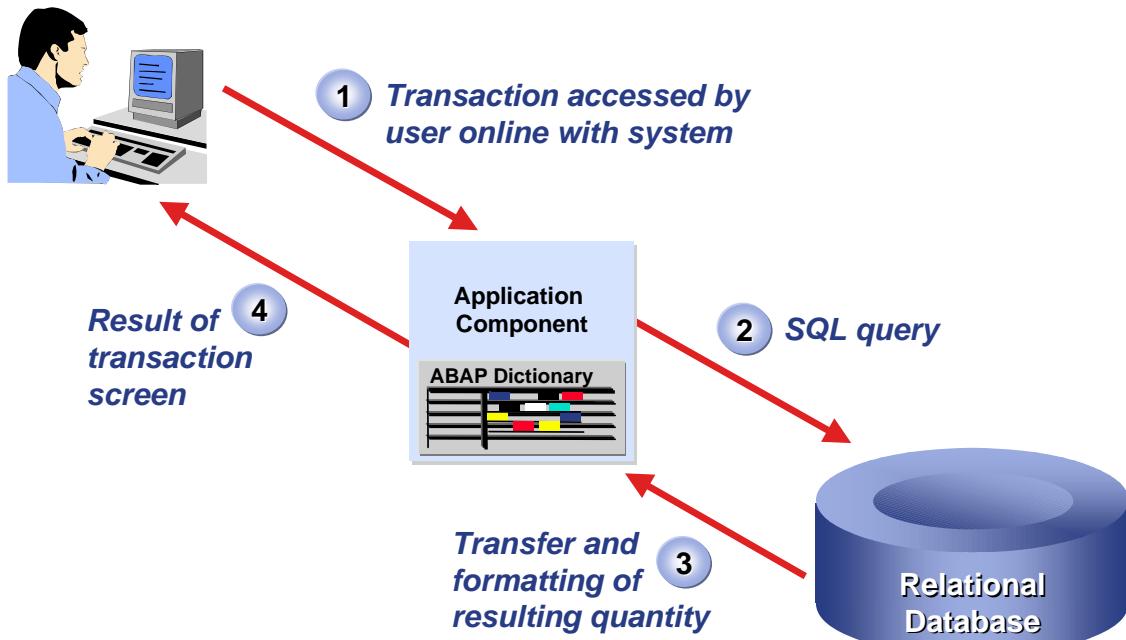


Hardware-Oriented View



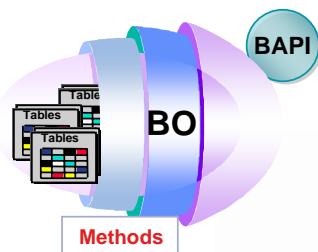
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- The R/3 System architecture allows you to separate application from the presentation and the database. This is the prerequisite for distributing load onto several application servers in client/server configurations. Therefore, the system can be distributed, in hardware terms, at three different levels.
- This architecture means that the installed host service can be adjusted without any problems (**scalability**), especially where load profiles have changed as a result of increasing user numbers, or because additional components have been used. R/3 System scalability provides you with flexibility when choosing hardware and software.
- Examples of R/3 System scalability:
 - Brewery - 20 users
 - Small Telecom company - 415 users
 - Large Software Company - 2000 users
 - Oil & Gas Company - 2500 users
 - Large Engineering Company- 3200 users
 - Large Telecom Company- 5800 users



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- An R/3 transaction is a sequence of dialog steps that are consistent in a business context and that belong together logically. When an R/3 transaction is executed, all individual dialog steps are performed and the data entered in the transaction is updated in the database. From the viewpoint of the database, this is a conversion from one consistent state to the next.
- After a user accesses a transaction, the R/3 System starts a query from the application level to the database level. The query is performed in SQL (Structured Query Language), the language compatible with most database systems. The scope of SQL enables the full functionality of the database system, including all vendor-specific enhancements, to be used.
- The ABAP (Advanced Business Application Programming language) Dictionary contains the field definitions that are defined in the standard SAP System. While online, the system uses the definition of the table fields in the ABAP Dictionary to check the format of the user's field entries. The check on R/3 application level guarantees data consistency before the data is transferred to the database.
- All data and programs in the SAP R/3 System are stored in the database.



Business Object:

Attributes:
(Characteristics)

Methods:
(Application
Programs)

Employee

- Name
 - Address
 - Salary
 - Job
- Change address
 - Promote

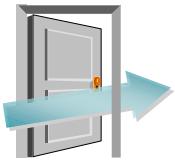
Sales Order

- Customer
 - Date
 - Item list
 - Price
- Deliver
 - Check availability
 - Trace shipping

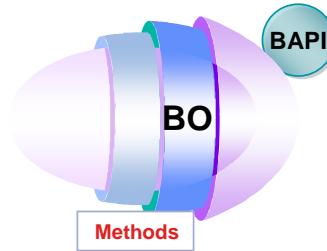
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- An SAP Business Object is the representation of a central business object in the real world, such as an employee, sales order, purchase requisition, purchase order, applicant, invoice, and so on.
- A business object is composed of tables that are related in a business context, including the related application programs. The application programs are called “methods” of the business object. Attributes and methods are assigned to a business object.
- Attributes are characteristics that specify the business object. The attributes can be modified by the methods that belong to the business object.
- Business objects are maintained by SAP in the Business Object Repository (BOR).

Business Application Programming Interface



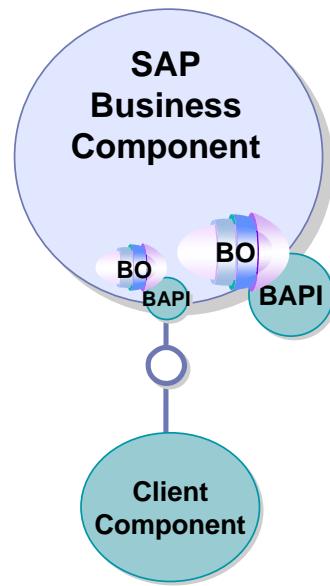
- A BAPI is a well-defined interface providing access to processes and data of business application systems.



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- BAPIs offer a stable, standardized interface for integrating third-party applications and components in the Business Framework. The interfaces are defined within the SAP initiative with customers, partners, and leading standardization organizations.
- A BAPI is basically an entry gate to the R/3 System, while R/3 offers access to business data and processes.
- A business object in the Business Object Repository (BOR) can have many methods from which one or several are implemented as BAPIs. (Recall that a “method” is an operation that can be performed on a Business Object that provides access to the object data..)
- Some BAPI functions:
 - Create objects
 - Display attributes of objects
 - Change attributes of object
- A BAPI is assigned to one and only one business object.

- **SAP Business Components**
(such as SAP FI/LO or SAP HR)
- **Business Objects**
(such as a Sales Order)
- **BAPIs**
(such as Create Sales Order)
- **Client Components**
(such as a sales component running on a laptop external to an R/3 System)

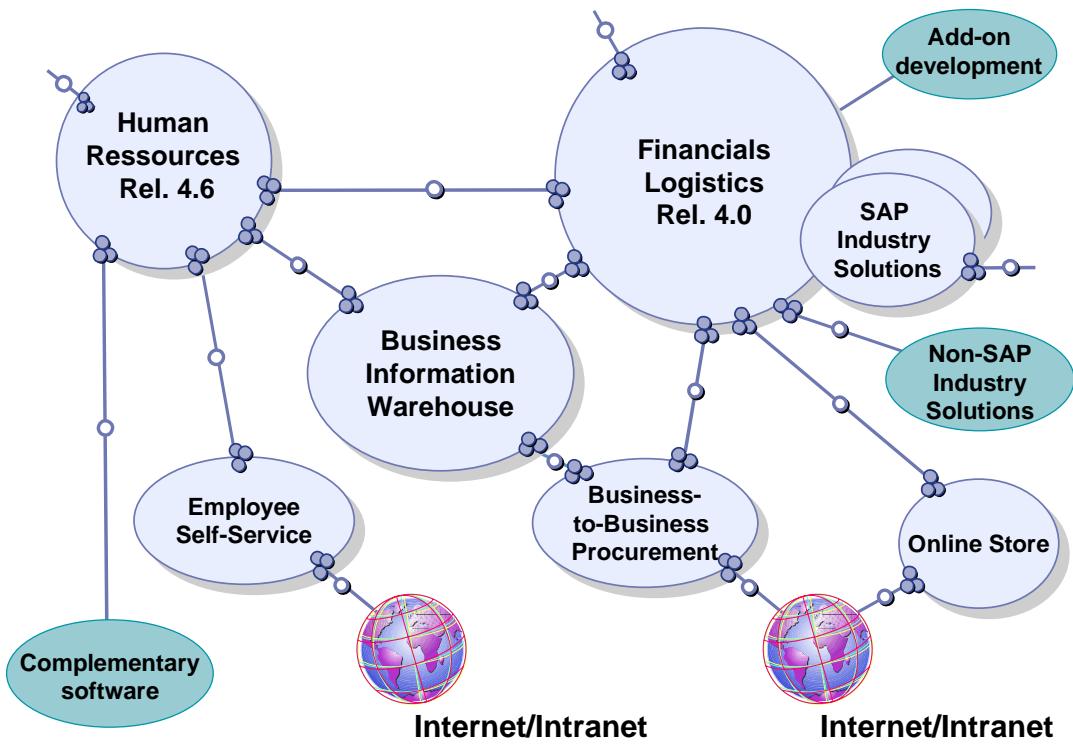


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- The Business Framework portrays the R/3 System as a family of products made up of separate, integrated components.
- The Business Framework Architecture works using business components, that is, configurable software modules, and it offers enterprises a flexible business infrastructure. This means that enterprise software can react quickly to new business demands, and can be changed or enhanced simply without disturbing the flow of business. Business components interact in the Business Framework Architecture via open BAPIs.
- The Business Framework Architecture is the strategic product architecture of the R/3 System.

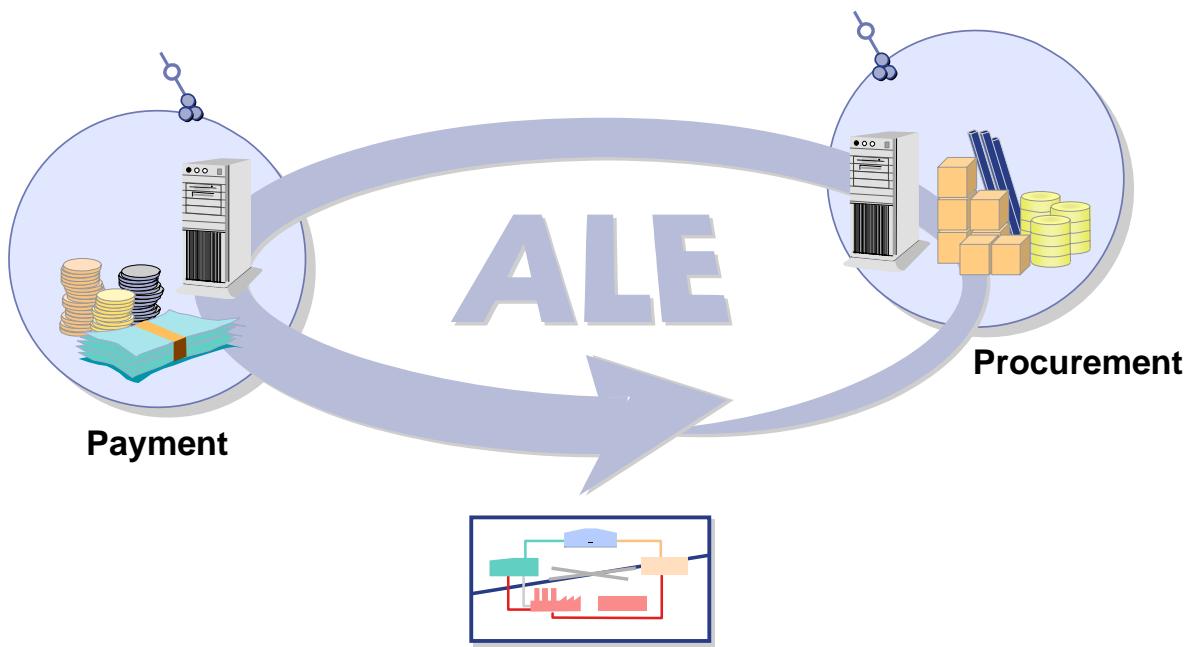
The SAP Business Framework

SAP



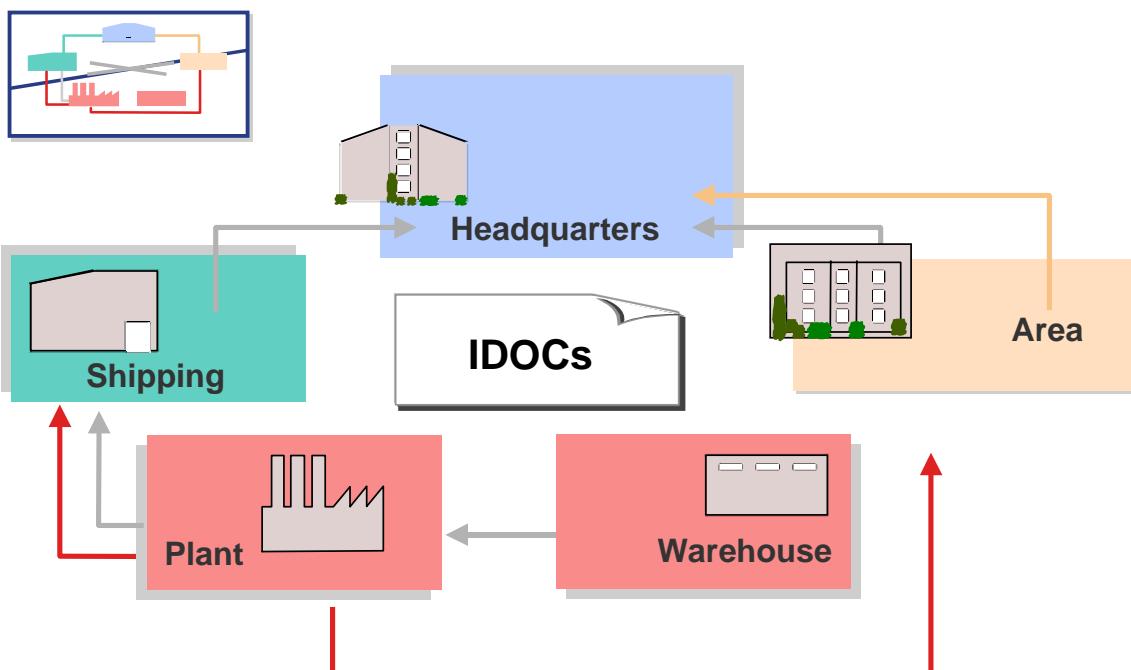
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- Using the Business Framework technology, SAP provides its customers with a platform to configure and connect business processes and information flows across all components of the Business Framework, and also across physically-separated application components.
- The benefits of the Business Framework Architecture include the ability to easily change and configure dynamically business processes independently of usual releases, easy integration of Internet and Intranet components in their business processes, simple connection between R/3 and third-party software, customers' own developments and evolutionary implementation of the latest technology, and separate upgrade of components without interrupting the business operation.



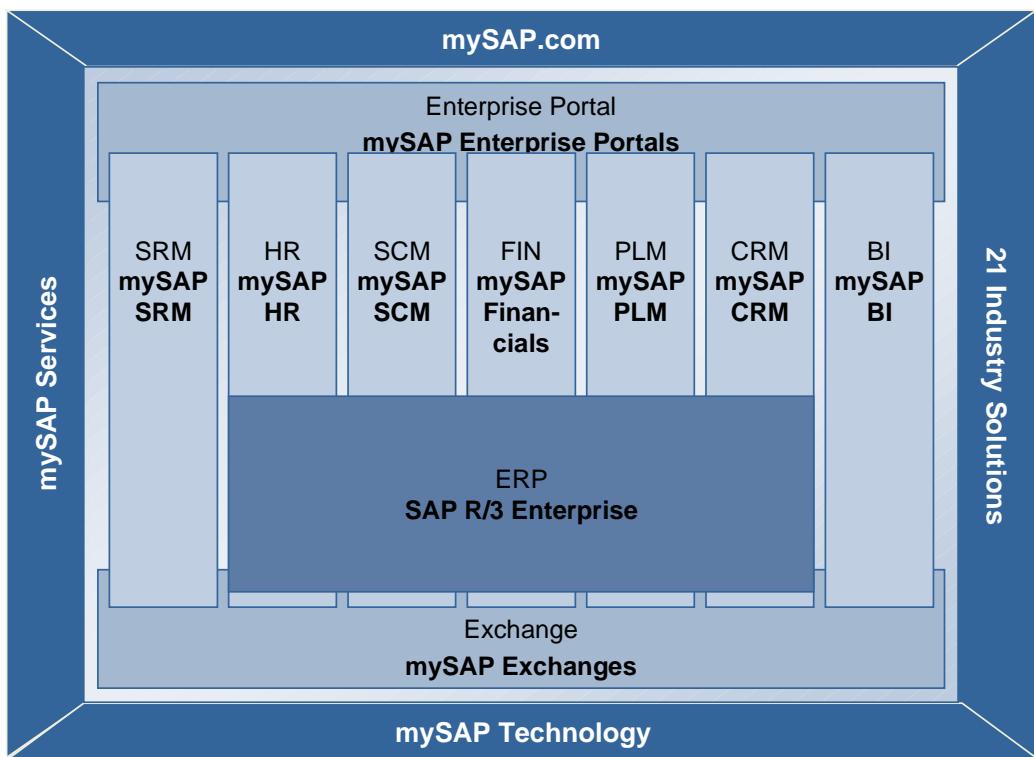
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- Business processes can be distributed using ALE.
- ALE is used to distribute data, master data and transaction data across different systems.
- The ALE concept always relates to an enterprise structure with areas that have central tasks and areas with tasks that are decentralized.



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- It may be practical for organizations to use separate application systems so that application components can be installed and operated on decentralized systems that are technically independent of each other.
- The ALE concept supports the implementation and operation of distributed SAP applications. It is based on business-controlled messaging with consistent data storage on loosely coupled systems. The applications are integrated through the message exchange, not via a central database.
- To implement a distributed, yet integrated system, the customer must specify in a logical model, which applications are to run on which systems and how the applications are to exchange data with each other.
- On the technical side, the data exchange is carried out via IDocs (intermediate documents) as used in the EDI (Electronic Data Interchange) interface. On the application side, EDI supports information exchange between R/3 systems in different enterprises, whereas ALE supports information exchange within one enterprise. The ALE distribution mechanism is similar to the EDI mechanism. In ALE, business processes are distributed at the transaction level.



SAP Active Global Support ...

- **is a global organization with >2000 employees in >40 countries**
- **supports 13.500 customers with 17.000 active installations**
- **delivers worldwide**
 - ◆ **solutions for 800.000+ customer messages (2001)**
 - ◆ **34.000+ service sessions (e.g. SAP GoingLive Check, SAP EarlyWatch Check, (2001))**
 - ◆ **500+ onsite services (e.g. SMA, SMO, 2001)**
 - ◆ **service enabling training for large customers (Support Academy)**
- **develops methodologies, infrastructure and services for solution management and to audit the startup of operations and continuous operations improvement**
- **develops and delivers training and knowledge transfer**

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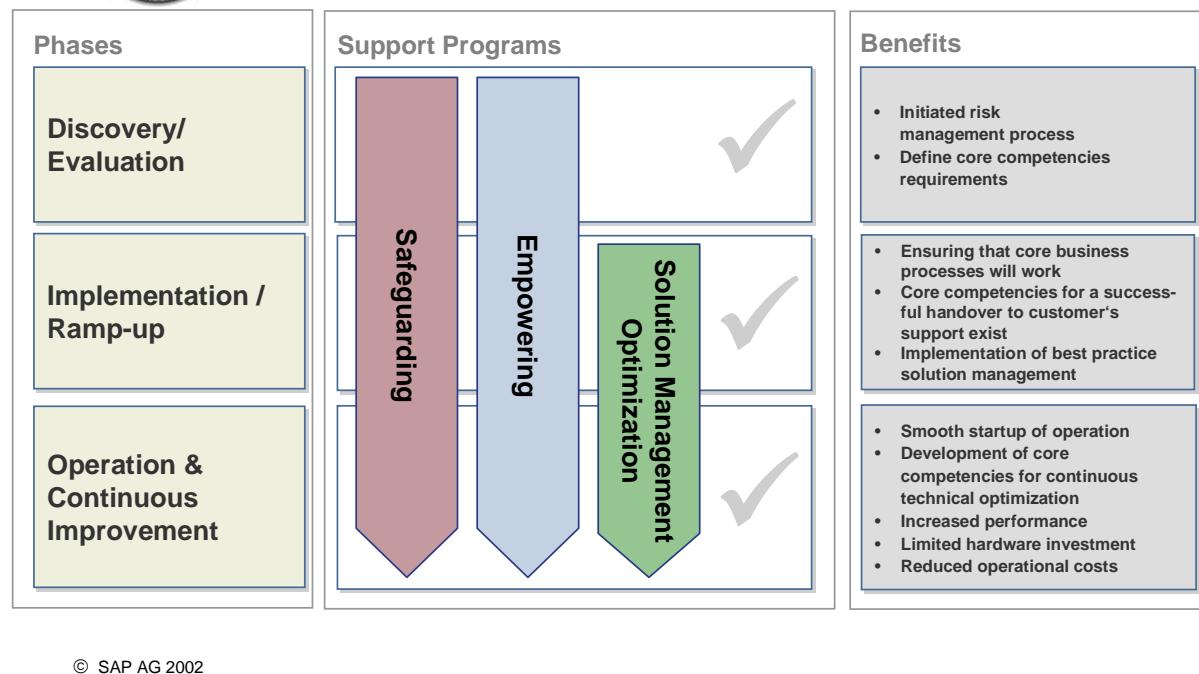
- **Support** is of extreme importance for Consulting since a lot of services are aligned with the one Consulting offers. In fact, Support as a subject starts very early in the life-cycle since the operation of a solution needs to be implemented as well as the business processes. Therefore consulting needs to know about the Support offerings and their integration into an implementation project. In the following the key concepts and offerings from SAP Active Global Support are described.
- **SAP GoingLive Check:** is part of the Safeguarding program and helps to manage technical risk to ensure optimal performance, availability and maintainability of mySAP.com solutions. It is best used during a new implementation or when you experience a significant increase of data and user volume. It proactively analyzes core business processes within the solution landscape and guides to a smooth start of production and technically robust operations afterwards.
- **SAP EarlyWatch Alert:** is part of the Safeguarding program and includes extensive analyses of performance and important administrative areas. It runs fully automatically, is free of charge and forms the foundation for further services during the entire life-cycle of your SAP system.
- **SAP EarlyWatch Check:** is part of the Safeguarding program and proactively analyzes the operating system, database, and entire SAP system to ensure optimal performance and reliability.
- **SMA = SAP Solution Management Assessment:** This onsite service is part of the Safeguarding program and maps the solution landscape and core business processes. It identifies weak points and the impact they have on your core business processes. A list is then generated containing the measures SAP recommends to take for your solution as well as an action plan, which explains how and when these measures can be implemented.
- **SMO = SAP Solution Management Optimization:** is a portfolio of services that keeps mySAP.com solutions running optimally, improves return on investment and reduces the total cost of operation. The services focus on technical optimization of application and system operations and solve technical issues which you are facing already or which have been identified in Safeguarding services as essential risk.

Proactive Services for Best Applications

SAP



Proactive Support Services from 3 programs
make sure you will be up and running



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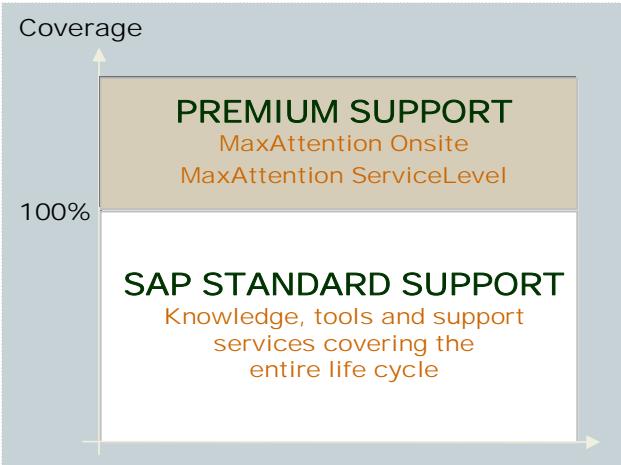
SAP Support Services are bundled in 3 programs and aligned with CEL phases.

- **Safeguarding** is a portfolio of checks used to manage technical risk and ensure the performance, availability and maintainability of mySAP.com solutions. These checks identify potential risks, therefore preventing technical problems before they happen. These services are best made use of in a very early stage of your implementation, upgrade or migration project. The earlier they are used, the greater they minimize the occurrence of technical issues and their related costs. They are most applicable in mission critical projects in crucial phases, for continuous monitoring and continuous business improvement.
- **Empowering** is a portfolio of assessments, training courses, workshops and road maps. Together, they deliver customer staff clear guidelines and transfer the knowledge they need to run a customer's support organization and optimally manage the mySAP.com solution landscape. Customer staff is empowered to solve technical issues before they have a chance to become expensive. Empowering significantly reduces the total cost of ownership and improves the performance of the mySAP.com solution with fully qualified staff, a competent support organization and necessary support tools.
- **Solution Management Optimization** is a portfolio of services that keeps mySAP.com solutions running optimally, improves return on investment and reduces the total cost of operation. The services focus on technical optimization of application and system operations and solve technical issues which you are facing already or which have been identified in Safeguarding services as essential risk. Solution Management Optimization services are designed to maximize your return on investment.

A Complete Support Solution

SAP

Tiered, unmatched maintenance offerings



Secure your investment. Maximize its value. Reduce Total Cost of Ownership. Explore opportunities

Proactive Support Programs span the entire life cycle

SAFEGUARDING

Manage technical risk and ensure technical robustness

EMPOWERING

Acquire the right core competencies to manage your solution

SOLUTION MANAGEMENT OPTMIZATION

Exploit the full potential of your mySAP.com solution

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Our Support offering is based on 3 key elements:

■ SAP Standard Support (priced at 17% of your licence contract value) offers:

- Worldwide support 7 days a week, 24 hours a day
- Support and maintenance of SAP software
- Integrated support for SAP solutions and SAP partner products
- SAP Solution Manager for integrating all content, tools, and methodologies for implementing and operating your mySAP.com solution
- Access to SAP through the SAP Service Marketplace
- Proactive remote services: Up to 2 SAP EarlyWatch Checks, SAP Early Watch Alert, SAP GoingLive Check or SAP GoingLive Functional Upgrade Check or SAP OS/DB Migration Check
- Standard Support is priced at 17% of your license contract value.

In addition, you can choose between two new premium options:

■ MaxAttention ServiceLevel

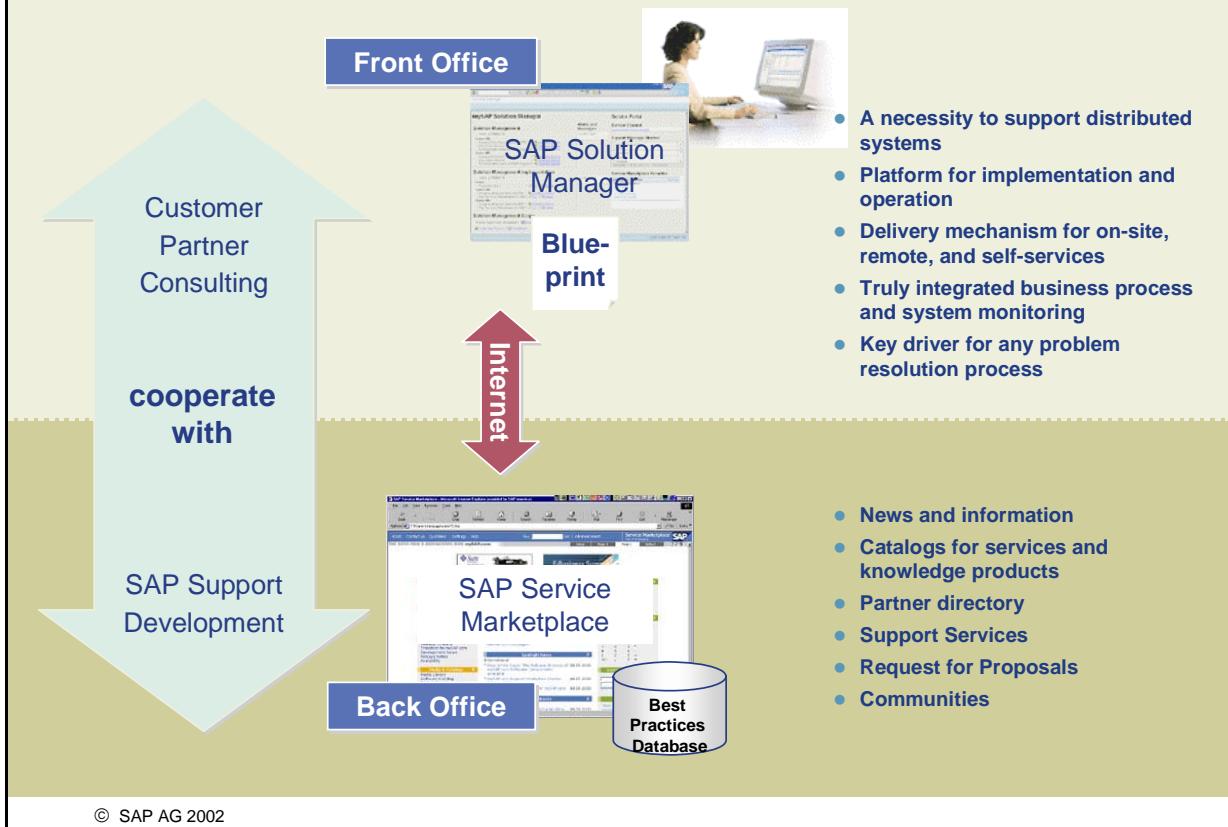
- MaxAttention ServiceLevel contains a Service Level Agreement for customer messages. A Service Level Agreement defines initial response times as well as the dispatching time for an onsite team in case of mission-critical, priority-one issues.
- Furthermore, the MaxAttention ServiceLevel coverage includes Safeguarding – that is technical risk management – for up to two mission critical projects, named contacts in Support, and back office support while using SAP's self-services.
- MaxAttention ServiceLevel is priced at an additional 3% of your license contract value or with a minimum fee per year of €450,000 or US \$450,000.

■ MaxAttention OnSite

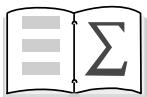
- The MaxAttention OnSite package includes the entire MaxAttention ServiceLevel package plus an additional on-site support component where SAP Active Global Support has dedicated a minimum of two full time equivalents at your site.
- These onsite consultants manage the maintenance process of the mySAP.com solutions, performing root cause analysis of your problems and provide mentoring for the usage of SAP tools. MaxAttention OnSite is priced at 6% of your license contract value in addition to the standard support fee or with a minimum fee per year of €900,000 or US \$900,000.

Service and Support Technology

SAP



- **The SAP Solution Manager** is the platform that provides integrated content, tools, and methods needed to implement, support, and operate an SAP solution during all phases of the life cycle. The SAP Solution Manager is built for managing distributed systems since it assures that all relevant data needed to resolve a solution issue is automatically collected and linked to the case. The required information includes business processes and related components and system landscapes, as well as integration dependencies. The SAP Solution Manager is the driver for the problem resolution process within the customer's organization and between the customer and SAP Active Global Support. The SAP Solution Manager encompasses three key areas: operations, solution monitoring, and support.
The SAP Solution Manager will be mandatory for all customers for the delivery of support services from 2003 on.
- **The SAP Service Marketplace** enables collaboration within the SAP community and provides access to SAP and partner services. Via the SAP Service Marketplace, customers can search for and access detailed information about SAP and its partners' services. Online ordering and delivery is available for a growing number of services. The primary tools helping customers to search, access, order, and receive services are: Service Catalog, Software Catalog, Training Catalog, Knowledge Shop, and Partner Directory. SAP Service Marketplace offers one channel for searching, selecting, accessing, and carrying out SAP/Partner services.
<http://www.service.sap.com>

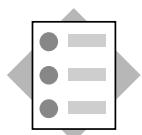


You are now able to:

- **Describe the evolution of the SAP Product Strategy**
- **Describe the relationship between mySAP.com and R/3**
- **Describe a few aspects of the mySAP.com E-Business Solutions**
- **Describe a few aspects of mySAP Technology**
- **Describe mySAP Services**

Contents:

- **Navigation in the system**
- **User-specific settings**
- **Navigation in the mySAP Workplace**



At the conclusion of this unit, you will be able to:

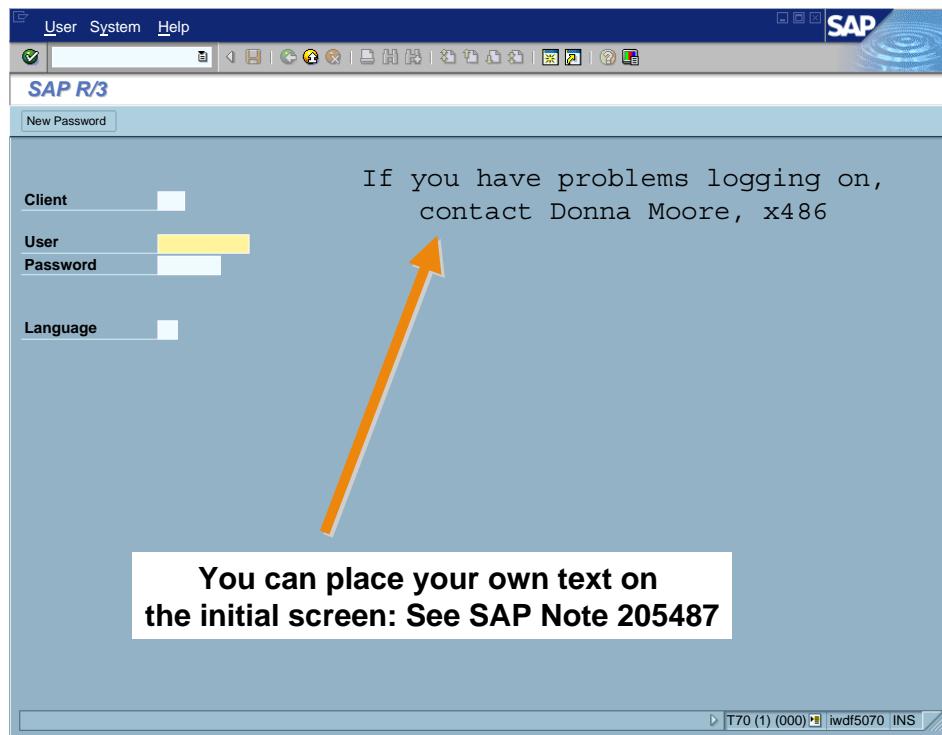
- Identify the elements of a typical window
- Navigate in the system
- Personalize your user settings
- Describe and use the mySAP.com Workplace



- **New users need to familiarize themselves with the screens in the system and define their personal default settings**

Logging On to the System

SAP

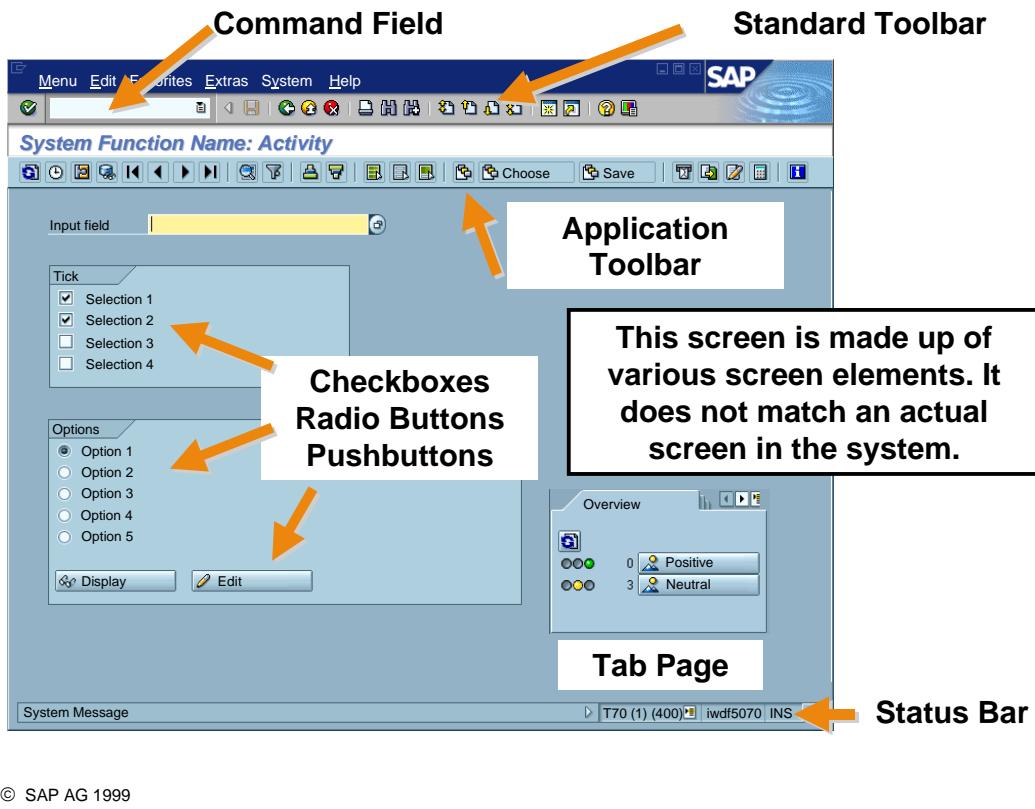


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- SAP R/3 Systems are **client systems**. The client concept enables the parallel operation, in one system, of several enterprises that are independent of each other in business terms. The components SAP Business Information Warehouse (BW) and SAP Knowledge Warehouse (KW) are exceptions to this: in these cases only one client is used. During each user session you can only access the data of the client selected during logon.
- A **client** is, in organizational terms, an independent unit in the system. Each client has its own data environment and therefore its own master data and transaction data, assigned user master records and charts of accounts, and specific Customizing parameters.
- For a user to log on to the system, a master record must exist in the system for that user. To protect access, a password is required for logon. The password is hidden as you type (you only see asterisks).
- SAP R/3 Systems are available in several languages. Use the *Language* input field to select the logon language for each session.
- Multiple logons are always logged in the system beginning with SAP R/3 4.6. This is for security as well as licensing reasons. A warning message appears if the same user attempts to log on twice or more. This message offers three options:
 - Continue with current logon and end any other logons of the same user in the system
 - Continue with current logon without ending any other logons in the system (logged in system)
 - Terminate current logon attempt
- You can place your own text on the initial screen in a number of ways. For more information, see the SAP Note mentioned above. The GuiXT (covered at the end of this chapter) offers a further option.

Screen Elements

SAP



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- **Command field:** You can use the command field to go to applications directly by entering the transaction code. You can find the transaction code either in the *SAP Easy Access* menu tree (see the page *User-Specific Personalization*) or in the appropriate application by choosing *System→Status*.
- **Standard toolbar:** The icons in the standard toolbar are available on all SAP R/3 screens. Any icons that you cannot use on a particular screen are dimmed. If you leave the cursor on an icon for a moment, a QuickInfo appears with the name (or function) of that icon. You will also see the corresponding function key. The **application toolbar** shows you which functions are available in the current application.
- **Checkboxes:** Checkboxes allow you to select several options simultaneously within a group.
- **Radio buttons:** Radio buttons allow you to select one option only.
- **Tabs:** Tabs provide a clearer overview of several information screens.
- **Status bar:** The status bar displays information on the current system status, for example, warnings or error messages.

Other elements are:

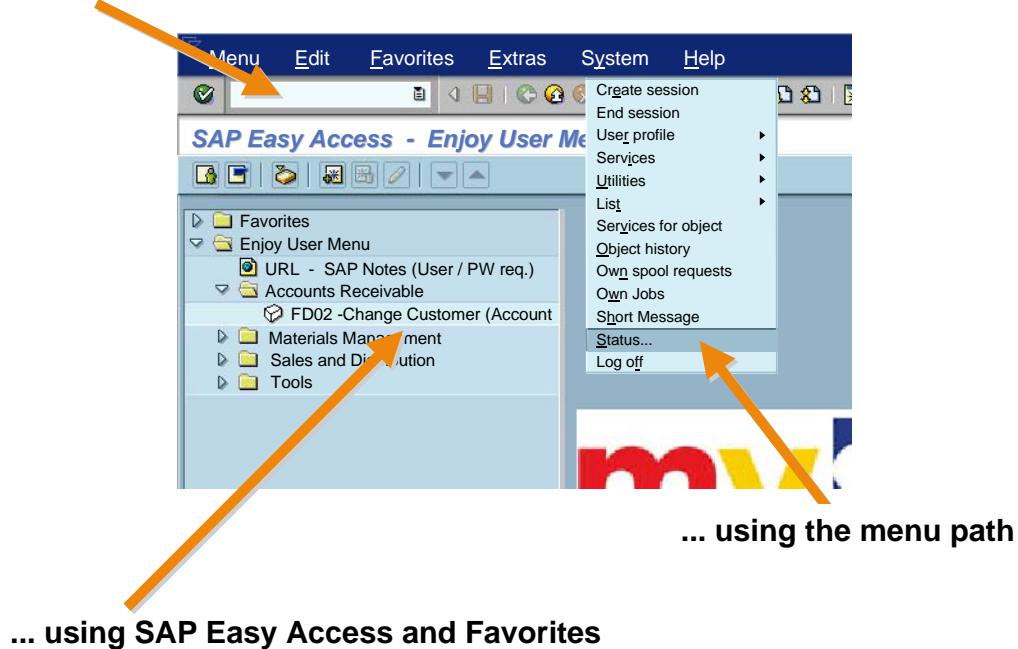
Menu bar: The menus shown here depend on which application you are working in. These menus contain cascading menu options.

Title bar: The title bar displays your current position and activity in the system.



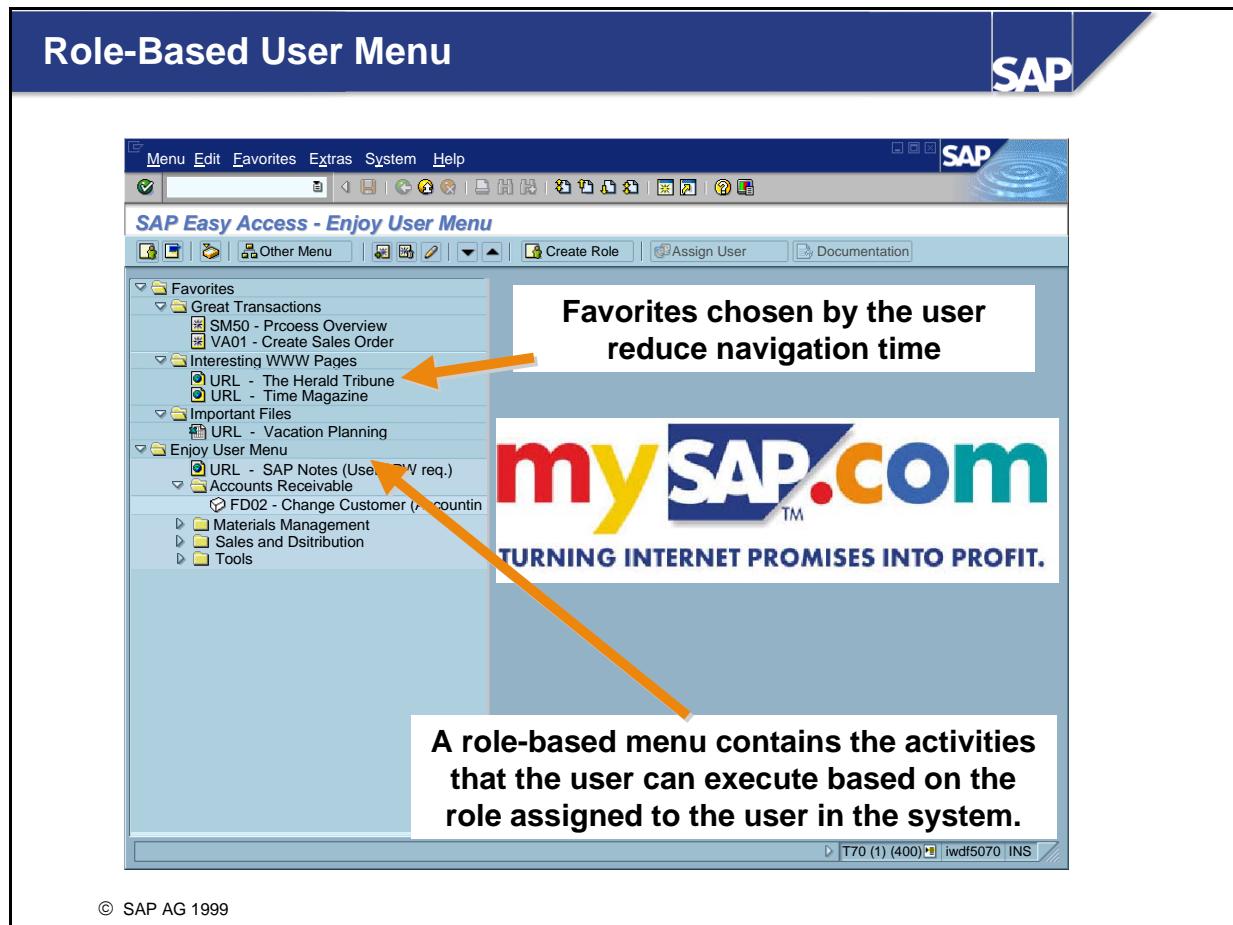
- **SAP Easy Access** is the standard entry screen displayed after logon. You navigate through the system using a compact tree structure.
- You can include an image on the right-hand side of the screen such as your company logo. This image can only be entered systemwide, and is a cross-client setting. Assuming you have the appropriate authorization, you can find a detailed description of the necessary settings by choosing *Extras → Administration Information*. Note that this image is stored in the system and transported to the SAP Frontend every time it is called by SAP Easy Access. Although this transfer is compressed, the image for the initial screen should not be bigger than around 20 kB. You can prevent this image being called either by using the setting *Low Speed Connection* in the SAPLogon program (see SAP Note 161053), or by switching off the calling of the image under *Extras→Settings*. See also *User-Specific Personalization*.

... using the transaction code in the command field



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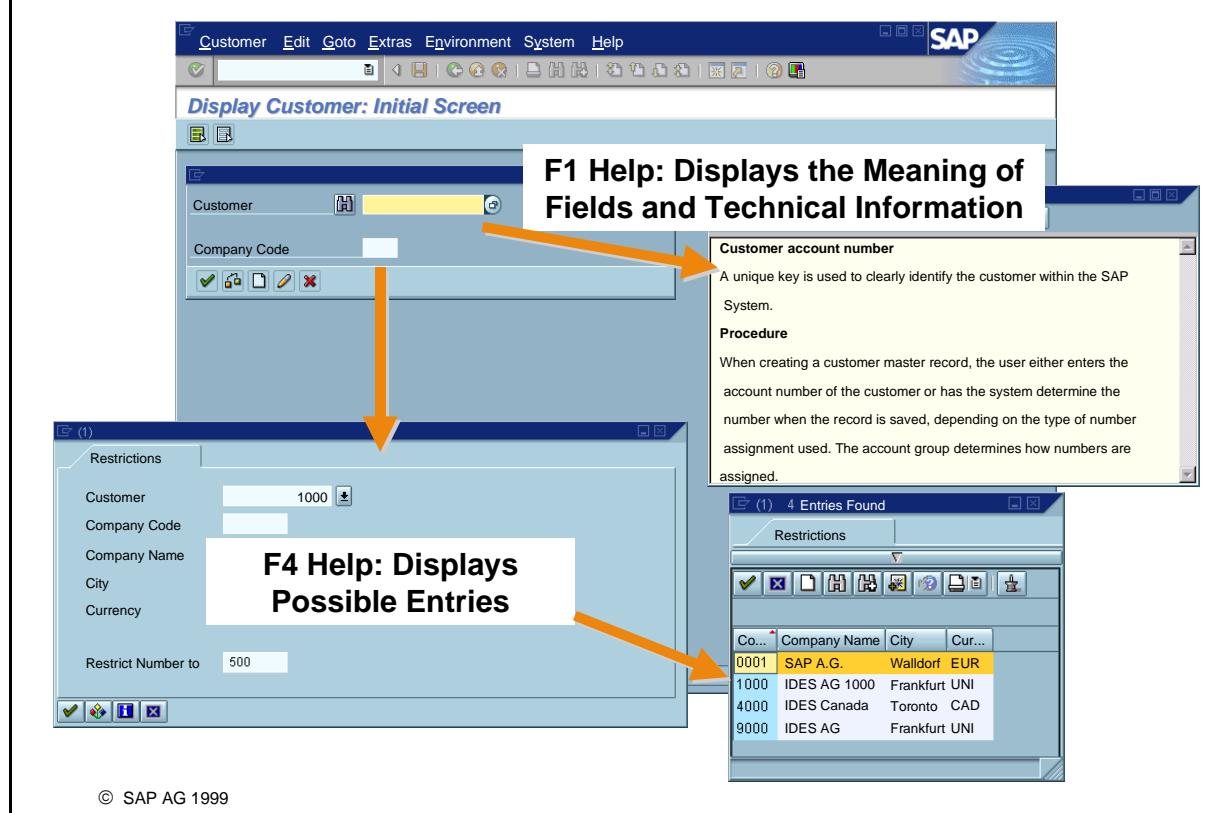
- You can select system functions in the following ways:
 - Use the mouse to choose: Menu options, Favorites, and SAP Easy Access options
 - Use the keyboard (ALT + the underlined letter of the relevant menu option)
 - Enter a **transaction code in the command field**:
A transaction code is assigned to each function in SAP R/3 Systems. You can access the assigned transaction code from any screen in the system. For example, to display customer master data, enter /n and the appropriate transaction code (in this case /nfd03). You can find the transaction code for the function you are working in under the *Status* option of the *System* menu. Other possible entries:
 - /n ends the current transaction.
 - /i ends the current session.
 - /osm04 creates a new session and goes to the transaction specified (SM04).
- You can also use the keyboard to go to the command field. Use the CTRL + TAB key combination to move the cursor from one (input) field group to the next.
Use TAB to move between fields within a group.
- By entering `search_sap_menu` in the command field, you can search for and display the menu path for an SAP transaction. You can also search for text strings.



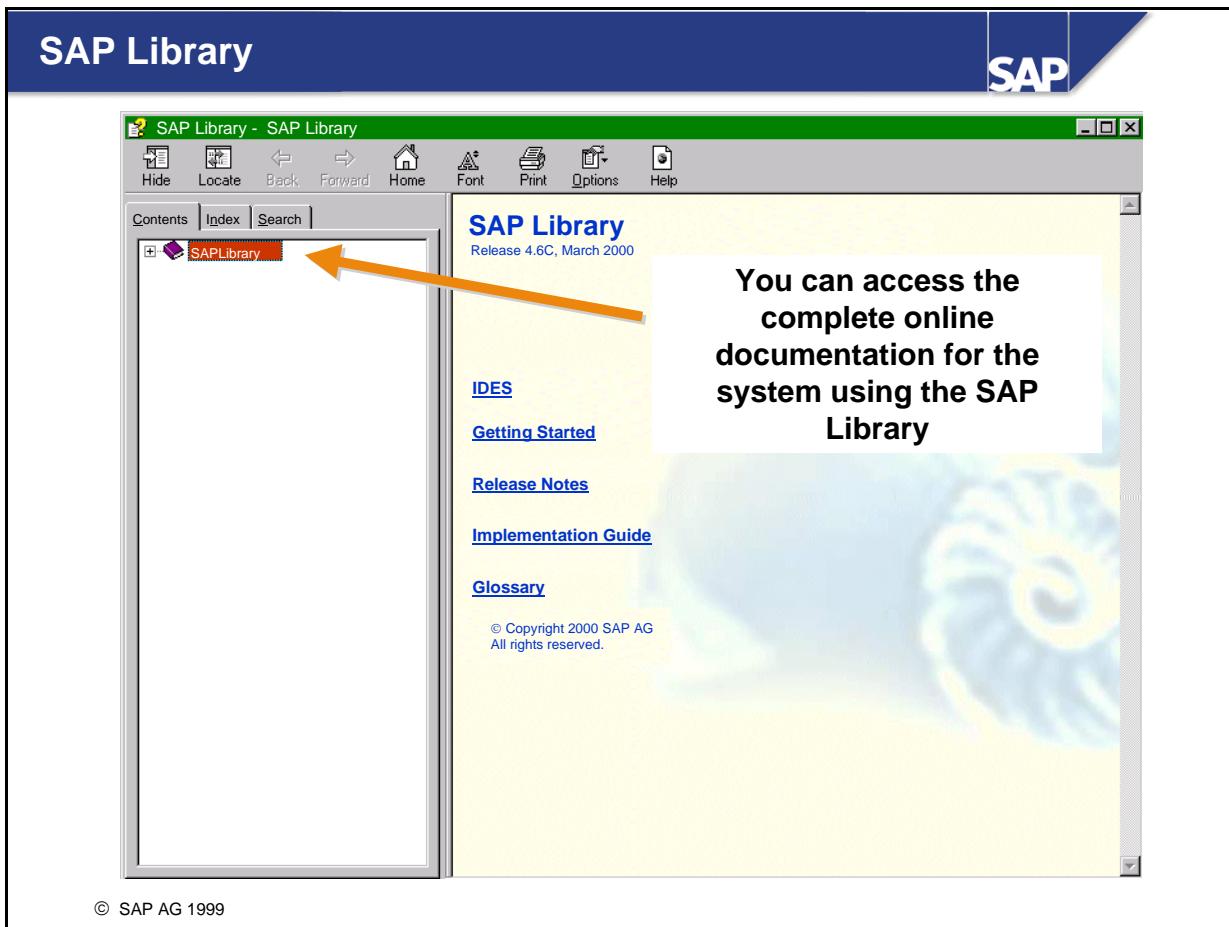
- A **Role** describes a set of logically linked transactions in the system. These represent the range of functions users typically need for their work.
- **User roles** (previously “activity groups”) have to be set up using the Profile Generator so that SAP R/3 System users can work with **user-specific** or **position-related** menus.
- The authorizations for the activities listed in the menus are also assigned to the users using user roles. With Release 4.6, predefined user roles from all application areas are included in the standard system.
- Users who have been assigned a user role can choose between the user menu and the SAP standard menu.
- The above screen shows the role-based user menu for a user with the name "Enjoy". You can find roles that are supplied in the standard SAP R/3 System by choosing *Other menu* on the *SAP Easy Access* initial screen.
- Every enduser can personalize the initial screen using *Favorites*. You can create your own **Favorites list** containing the transactions, reports, files, and Web addresses that you use most often.
- You can add favorites either by choosing *Favorites* or by using the mouse to “drag & drop” items into the *Favorites* directory.

Field Help: F1 and F4

SAP



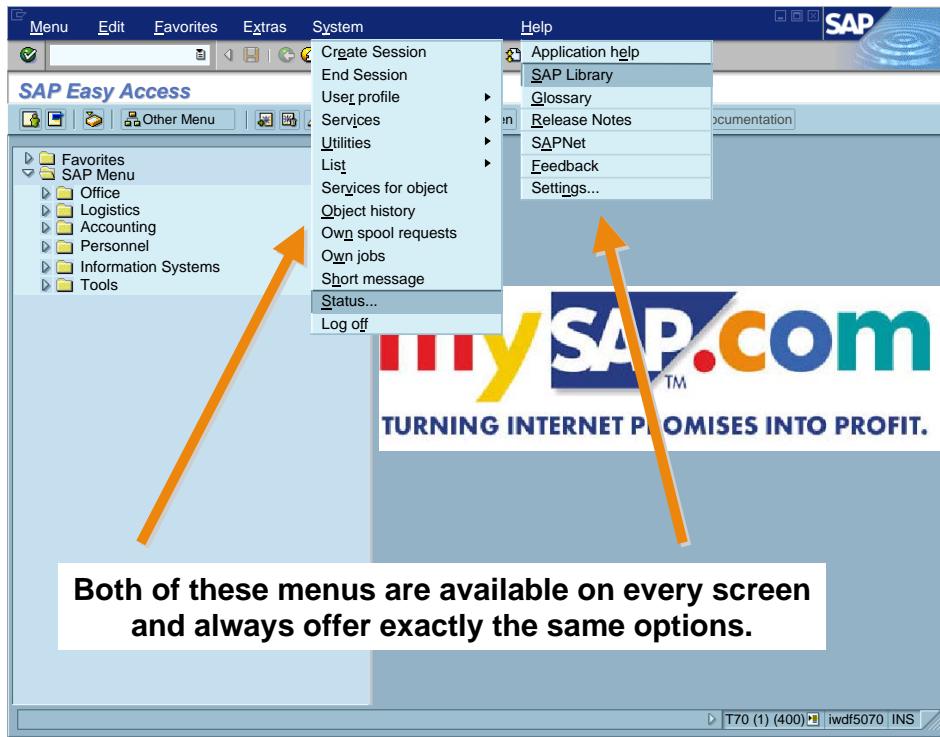
- For help on fields, menus, functions, and messages, use **F1**.
- F1 help also provides technical information on the relevant field. This includes, for example, the parameter ID, which you can use to assign values for your user to input fields , which have to refer to these parameter IDs.
- For information on what values you can enter, use **F4**. You can also access F4 help for a selected field using the button immediately to the right of that field.
- If input fields are marked with a small icon with a checkmark, then you can only continue in that application by entering a permitted value. You can mark many fields in an application as either required entry fields or optional entry fields. You can also hide fields and preassign values using transaction or screen variants or Customizing.



- SAP R/3 Systems provide comprehensive online help. You can display the help from any screen in the system. You can always request help using the *Help* menu or using the relevant icon (the yellow question mark).
- You can access the SAP Library quickly and comfortably by using the SAP Service Marketplace. There you can find the *SAP Help Portal* under *Knowledge and Training*, where you can not only access Help in HTML format, but can also perform efficient full-text searches in the SAP Library. If you have the SAP Library installed, you also have, of course, these opportunities within your company.
- You can access the Help Portal directly at <http://help.sap.com>

Menus: System and Help

SAP

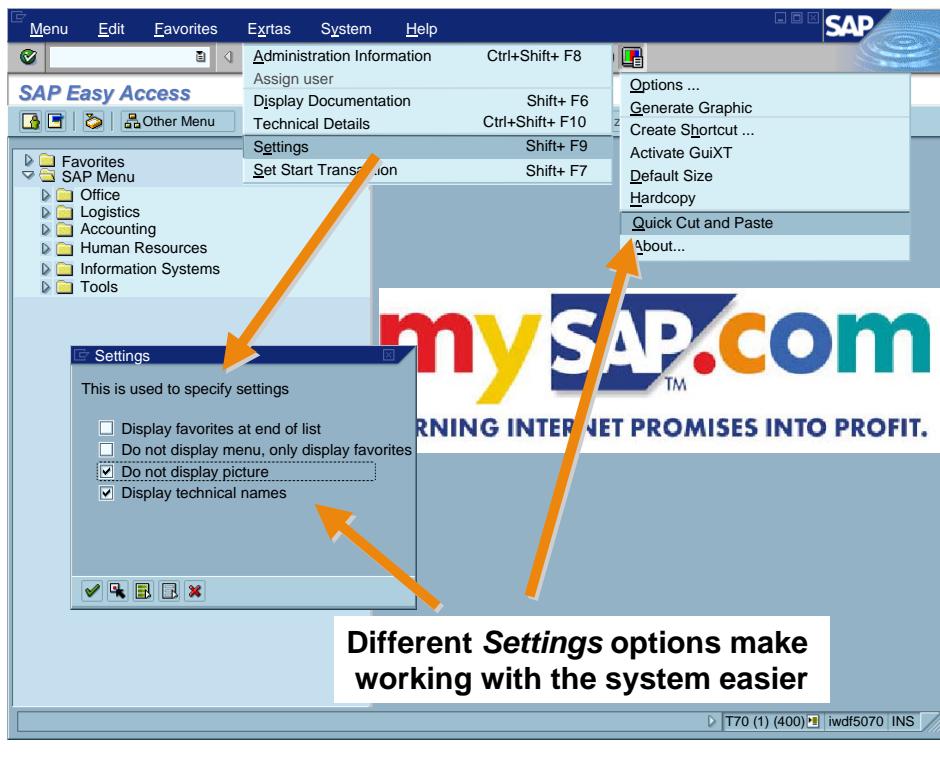


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- The *System* menu contains, among others, the following options:
 - Create/End Session: Allows you to create and end sessions. The maximum number of sessions can be set to a number between 2 and 6 by the system administrator using the parameter rdisp/max_alt_modes.
 - User profile: This is where you can enter user-specific settings. For example, you can use Parameter IDs in *Own Data*, in order to set default values for specific user-dependent fields in the system (for example the company code field).
 - List: Contains important list functions, such as searching for character strings, saving in PC files, printing, and so on.
 - Status: Enables you to display important user and system data.
 - Log off: Ends the R/3 session with a confirmation prompt.
- The *Help* menu contains, among others, the following options:
 - Context-sensitive *Application Help*
 - Access to the *SAP Library* (see previous page)
 - a *Glossary*
 - ...

User-Specific Personalization

SAP



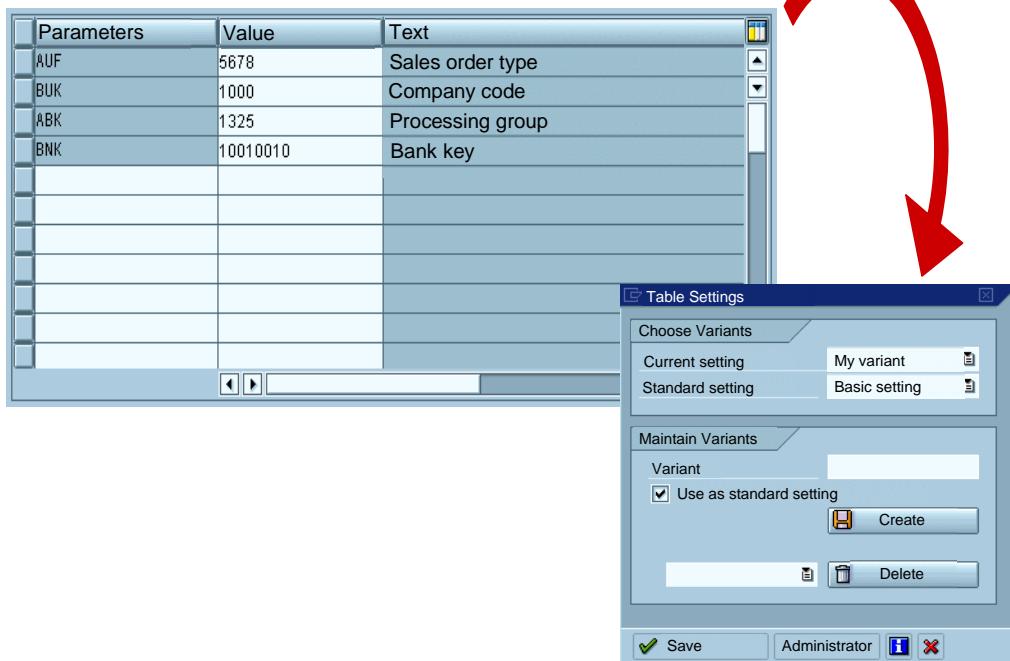
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- The end user has many possibilities for personalizing the system. Some are described below:
 - You can alter the layout of your initial screen under *Extras* → *Settings*, for example by switching off the image in the right-hand part of the window or by turning on the option to display the technical names (transaction codes) in the SAP Easy Access Menu.
 - Among other things, you can activate a quick cut and paste in the *Options menu*. Using *Options* you can change the reaction speed of the QuickInfo that is displayed when you hold your mouse cursor over an icon or a push button.
 - By following the path *System* → *User profile* → *Own data*, you can set personal standard values. You can choose the tabs *Address*, *Defaults*, and *Parameters*. As an example, the setting of *Parameters* is explained here:
 - Parameters: Here you can set defaults for frequently used input fields. In order to be able to set a default value for a field, it must have been assigned a Parameter ID.

Procedure for finding the Parameter ID: Go to the field for which you wish to set a default value. Select the F1 help, and then choose *Technical Info*. The system displays an information window that contains the relevant parameter ID under the heading *Field Data* (as long as the field has been assigned a *Parameter ID*).

Table Settings - Example

SAP



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- Use the *Table Settings* function to change, in the table control, the individual basic table settings that are supplied with the system. This is particularly useful for tables where you do not need all the columns. You can use the mouse to drag & drop column positions and widths, or even make the column disappear.
- Save the changed table settings as a *variant*. The number of different variants you can create per table is not restricted.
- The first variant is called the *basic setting*; the SAP System defines this setting. You cannot delete the basic setting (you can delete the variants you define yourself).
- The table settings are stored with your user name. The system uses the variant currently valid until you exit the relevant application. If you then select the application again, the system will use the standard settings valid for this table.
- **Note:** you can change table settings wherever you see the table control icon in the top right-hand corner of a table.

Personalizing the Frontend with GuiXT

SAP

Display Customer: Address

FD03 without GuiXT

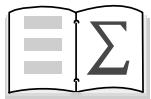
Display Customer: Address

FD03 with GuiXT

Example from <http://www.guixt.com>

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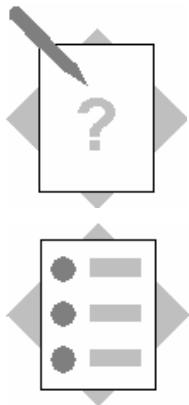
- SAP R/3 Systems offer numerous options for settings and adjustments:
- Define default values for input fields
- Hide screen elements
- Deactivate screen elements (dimmed)
You can do this by, for example, defining transaction variants.
- SAP offers **GuiXT**, as of SAP R/3 Release 4.6. In addition to all of the above functions, you can now:
 - Include graphics
 - Convert fields and add pushbuttons and text
 - Change input fields (or their F4 help results) into radio buttons
- **GuiXT** scripts are stored on the Frontend. In accordance with local scripts (which can also be stored centrally), the GUIXT scripts determine how data sent from the application server is displayed. These scripts can be standard throughout a company, or they can be different for each Frontend.
- **NOTE:** The GuiXT will support the mySAP.com Workplace only as of the end of the year 2000. This means that until then you should use **either** the SAP GUI for the Windows Environment and the GuiXT **or** the mySAP.com Workplace with the SAP GUI for HTML (or the SAP GUI for Java or the SAP GUI for Windows).



You are now able to:

- Identify the elements of a typical window
- Navigate in the system
- Make personal system settings
- Describe and use the mySAP.com Workplace

Exercises



Unit: Navigation

Topic: Basic Functions

At the conclusion of this exercise, you will be able to:

- Log on to an SAP R/3 System
- Find transaction codes
- Access the SAP Library
- Use F1 help to find field information
- Use F4 help to search for possible field entries



As a new user of an SAP R/3 System, you begin to navigate the system using the menu paths and transaction codes. You also begin to access the various types of online help.

All menu paths in the exercises refer to the SAP standard menu.

1-1 Logging on to the system

Select the appropriate system for this course. Use the client, user name, initial password and logon language specified by the instructor. The first time you log on, you will get a prompt in which you must enter your new password, which you choose yourself, twice. Make a note of the following:

Client: ___ User: _____ Password: _____ Language: ___.

1-2 What is the maximum number of sessions (windows in the SAP R/3 System) you can have open simultaneously? ___

- 1-3 Identify the functions and find the transaction codes that correspond to the following menu paths in the SAP standard menu.

1-3-1 ***Tools→Administration →Monitor →System Monitoring→User Overview***

Name of function: _____

Transaction: _____

1-3-2 ***Accounting →Financial Accounting →Accounts Receivable→ Master Records→Display***



Enter **Customer 1000** and **Company Code 1000** to go to the next screen.

Name of function: _____

Transaction: _____

1-4 Help

- 1-4-1 If you choose *Application help* in the *SAP Easy Access* initial screen (*Help* menu), which area of the SAP Library does it take you to?



To answer the questions below, you will need to go to the *Display Customer: Initial Screen*.

- 1-4-2 Use **F1** help on the *Customer* field. What is this field used for?

Write a brief summary of the business-related information.

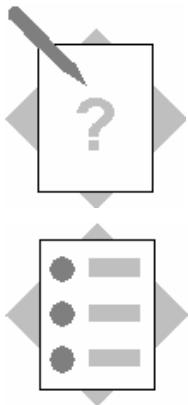
- 1-4-3 Use the **F1** help on the *Company code* field. If you choose the *Application help* icon from the F1 help screen, which area of the SAP Library does it take you to?

1-4-4 Which icon do you need to use on the F1 help screen to find the parameter ID for the *Company code* field?

1-4-5 Use **F4** help on the *Customer* field to find the customer number for *Becker ##*. To do this, use the *Search term* "Becker*" after calling the F4 help.

Note: ## corresponds to your assigned group number.

Exercises



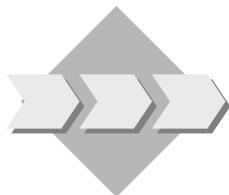
Unit: Navigation

Topic: User-Specific Settings

At the conclusion of this exercise, you will be able to:

- Set a user parameter for a field
- Set user defaults
- Maintain your favorites
- Select a start transaction of your choice

You begin to set various user-specific settings.



Exercises marked * are optional.

2-1 Setting user parameters.

2-1-1 Assign a parameter value for the *Company code* field to your user profile.

Note: The instructor will tell you what parameter value to enter (for example 1000). For information about defaults, see the notes on the slide *User-Specific Personalization*.

Parameter ID: _____

Parameter value: _____

2-2 Defining User-Specific Settings using System → User profile → Own Data

2-2-1 In your user profile, set your logon language to the value used for the course.

2-2-2 In your user profile, set the decimal notation and date format of your choice.

2-3 Defining your favorites

- 2-3-1 Insert at least one new folder under the *Favorites* folder.
 - 2-3-2 Add any two of your favorite transactions to the corresponding folders.
 - 2-3-3 Add the Internet address `http://www.sap.com` with the text *SAP Homepage*.
- 2-4* Setting a start transaction using the *Extras* menu.

- 2-4-1 Enter a transaction of your choice as the initial transaction. You will then need to log off and on again for the change to take effect.

Note: If desired, you can change the initial transaction back to the default value simply by deleting the transaction code that you entered.



Unit: Navigation

Topic: Basic Functions

- 1-1 Log on to the system specified by the instructor and change your initial password.
- 1-2 To open and close sessions, choose **System → Create session** (or use the appropriate icon) or **System → End session**.
The maximum number of sessions you can have open simultaneously is six (6), depending on your system settings.
- 1-3 To find the transaction code, choose **System → Status**. These function names and transaction codes correspond to the menu paths:
 - 1-3-1 Transaction: SM04 for Function Name: *User list*
 - 1-3-2 Transaction: FD03 for Function Name: *Display Customer: General Data*
- 1-4 Help
 - 1-4-1 The section of the unit *Getting Started* that deals with using SAP Easy Access is displayed.
 - 1-4-2 Suggestion: The customer is a unique key (account number) used to clearly identify the customer within the system.
 - 1-4-3 FI – Accounts Receivable and Accounts Payable
 - 1-4-4 To find the *Parameter ID*: BUK, choose *Technical Info*
 - 1-4-5 Customer ## (## corresponds to your assigned group number)

When you select **F4** in the *Customer* field, the *Restrict Value Range* window appears. You can explore the various tabs to see the different search criteria available. Find a tab that includes the *Search term* field and enter the following:

Field Name	Value
<i>Search term</i>	<i>Becker*</i>

Choose *Enter*. A window appears listing the customer account numbers that match your search criteria. Select the line that corresponds to Becker ##, then choose *Copy*. This automatically copies the customer account number into the *Customer* field.

Solutions



Unit: Navigation

Topic: User-Specific Settings

2-1 Setting user parameters.

- 2-1-1 To assign a parameter value to a field you will need the parameter ID of the field. First you need to select a transaction that contains this field. For example, *Company code* can be found in transaction **FD03**. Next, place the cursor on that field (click it with the mouse). To display the required info, choose:

F1 → Technical Info → Parameter ID

gives you the required information. For the *Company code* field, the parameter ID is **BUK**.

Finally, enter the parameter ID and desired value in your user profile:

System → User profile → Own data

On the *Parameter* tab page you enter the parameter ID and value that you want to be entered into the field. *Save* your entries.

2-2 Setting user defaults.

- 2-2-1 To set the logon language, go to your user profile:

System → User profile → Own data

On the *Defaults* tab page, enter the language of your choice in the *Logon language* field.

- 2-2-2 To set the decimal notation and date format, remain on the *Defaults* tab in your user profile. Select the indicator adjacent to the notation and format you desire. *Save* your selections.

2-3 Defining favorites of your choice.

2-3-1 ***Favorites → Insert folder***

Type any name for the folder then select *Enter*. You can add as many folders as you desire. Once created, folders can be dragged and dropped to position them where you want.

- 2-3-2 To create favorites, select specific applications (transactions) that you need as favorites for your daily work from the menu tree of the SAP standard menu. Add them to your Favorites list by selecting them and choosing *Favorites → Add* from the menu bar. Alternatively, use the mouse to drag & drop favorites to a folder. You can also use the menu path ***Favorites → Insert transaction*** to add using a transaction code.. Finally, you can move existing favorites to different folders later by choosing ***Favorites → Move*** or using drag & drop.
- 2-3-3 Create Internet addresses by choosing ***Favorites → Add Web address or file***. When you select *SAP Homepage* from your favorites, an Internet browser will open and you will be connected to SAP's homepage.

2-4 Setting a start transaction.

2-4-1 ***Extras → Set start transaction***

Enter a transaction of your choice then choose *Enter*. Notice the system message on the status bar indicates that your selected transaction has been set as the start transaction. The next time you log on, the system will go directly to your start transaction.

Note: To change back to SAP Easy Access as the initial screen, follow the menu path again, delete the transaction code and select *Enter*. The next time you log on, SAP Easy Access will be the initial screen.

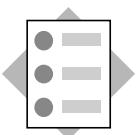


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- System R/3
- Release 4.0A
- September 1998
- 50023735

Contents:

- Course goals
- Course objectives
- Course contents
- Course overview diagram
- Main business scenario



At the conclusion of this course you will be able to:

- maintain basic sales and distribution data and name the enterprise structures required for these
- work with different sales and distribution documents
- describe the routes from sales and distribution areas such as materials management, production (for example, assembly order) and accounting
- carry out evaluations on the sales and distribution processes in the SAP system

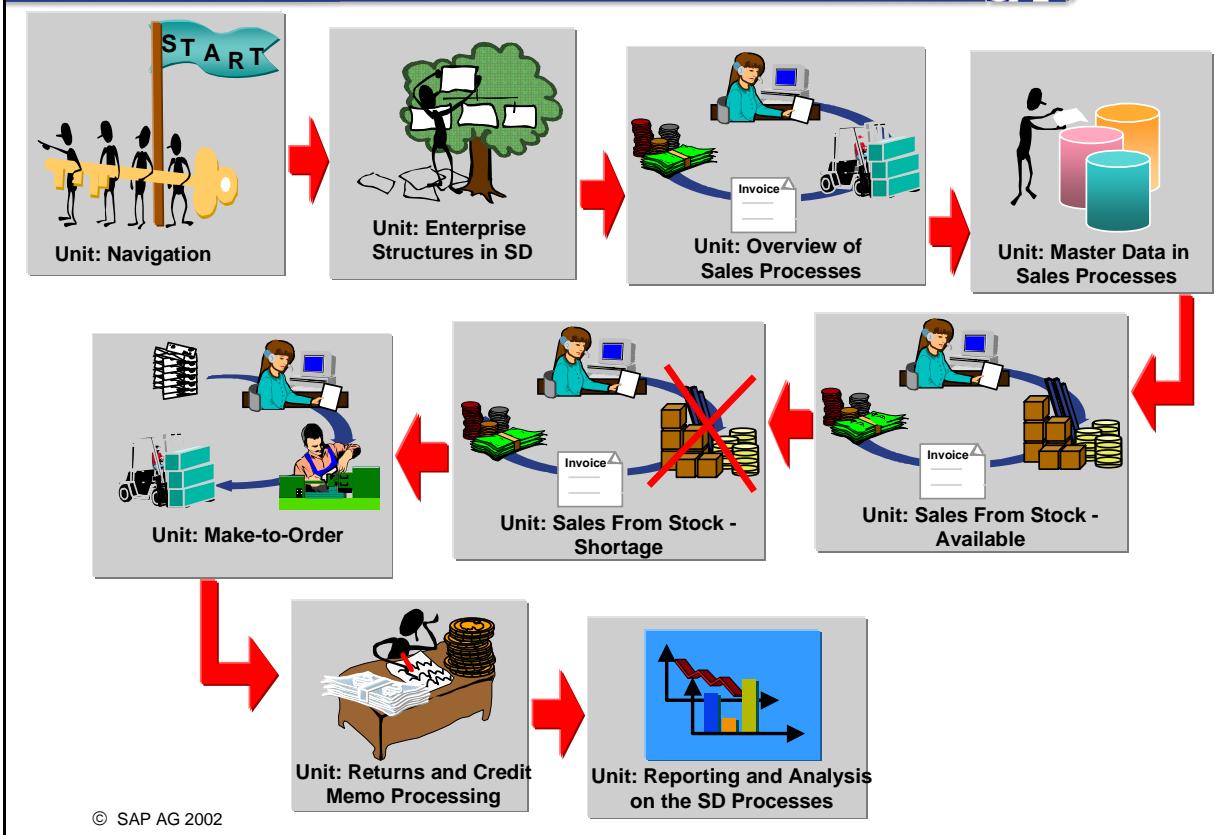
-
- | | |
|--------|--|
| Unit 1 | Enterprise Structures in Sales and Distribution |
| Unit 2 | Overview of Sales Processes |
| Unit 3 | Master Data in Sales and Distribution |
| Unit 4 | Sales From Stock - Available |
| Unit 5 | Sales From Stock - Shortage |
| Unit 6 | Make-To-Order |
| Unit 7 | Returns and Credit Memo Processing |
| Unit 8 | Reporting and Analysis on the Processes in Sales and Distribution |
-

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- This Consultant Training contains different courses each discussing a specific topic. Each single course is divided into different units.

Overview Diagram

SAP



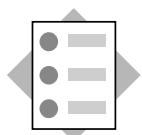
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- The model company IDES offers a range of materials to customers
- An SAP system is implemented in this company
- You are a member of the project team and during the course you will check and test functions to see whether they can be used for your sales processes and if so, how they can be used
- You will also check and test various customizing settings in order to see what controls you have available to you within the system

Contents:

- **Introduction to the R/3 organizational elements**
- **Organizational units in the R/3 System**
- **Sales and distribution structures of the case company
IDES AG**

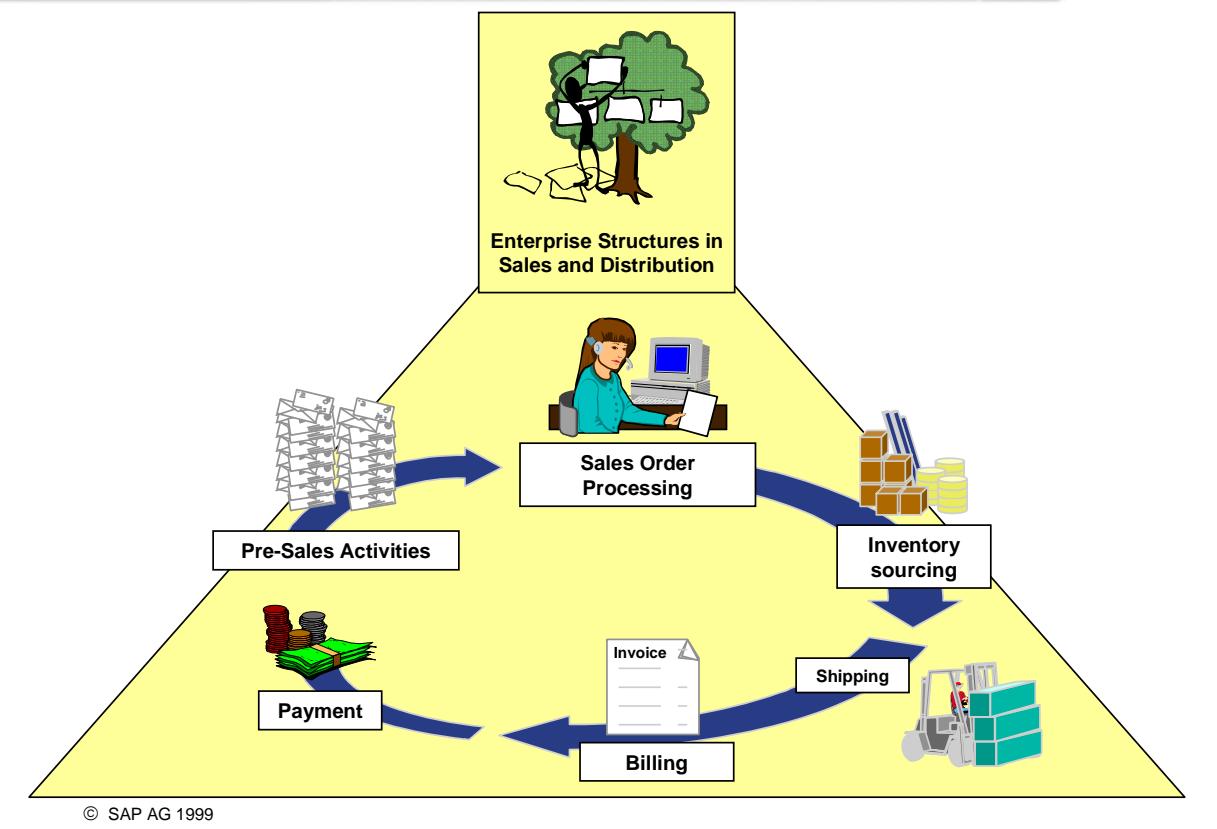


At the conclusion of this unit, you will be able to:

- **Describe the sales and distribution structures of IDES AG**
- **Identify organizational units in the SAP System that are relevant for sales and distribution**
- **Describe the essential characteristics of these organizational units**
- **Form organizational structures using the organizational units**
- **Form organizational structures using combinations of organizational units**

Overview Diagram: Enterprise Structures

SAP



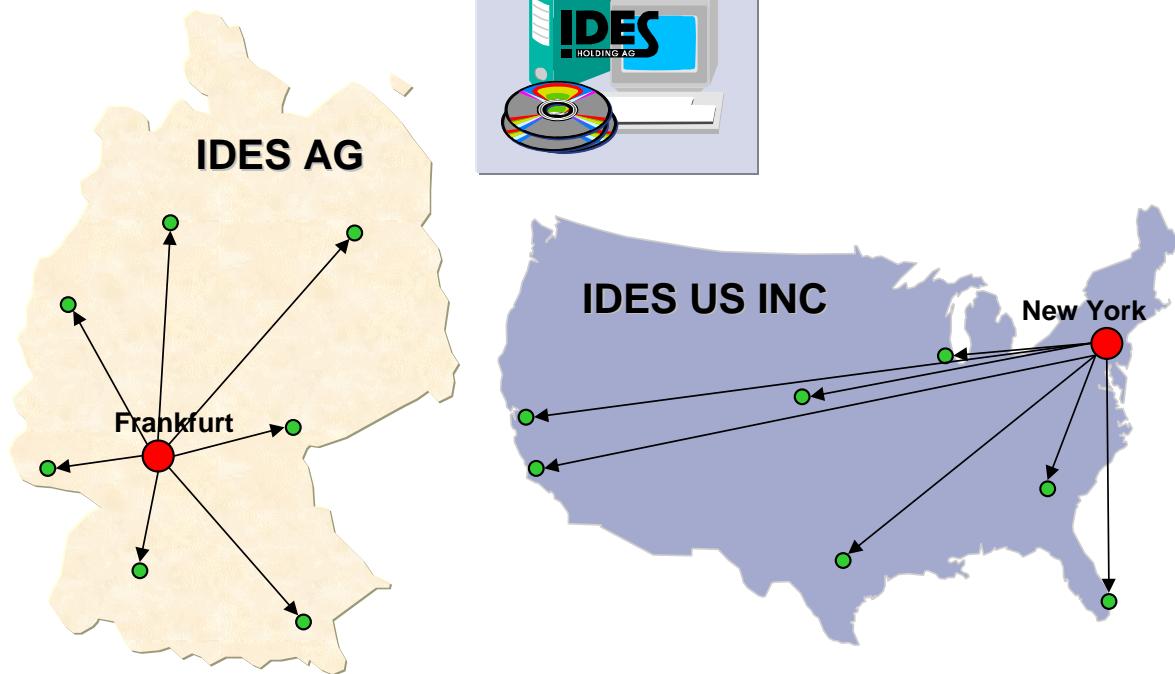
- This unit covers the possibilities for representing the organizational structure of a company's sales and distribution department in the SAP System.
- You use various organizational elements and connect them together, as required.



- Your company IDES AG is part of the globally operating IDES group.
- IDES AG produces and sells motorcycles. Assemblies are delivered from plants in Europe and North America.
- Your company also serves the market with assemblies and spare parts.
- IDES usually sells to authorized dealers that only sell IDES vehicles.

Organizational Structure of IDES Holding AG

SAP

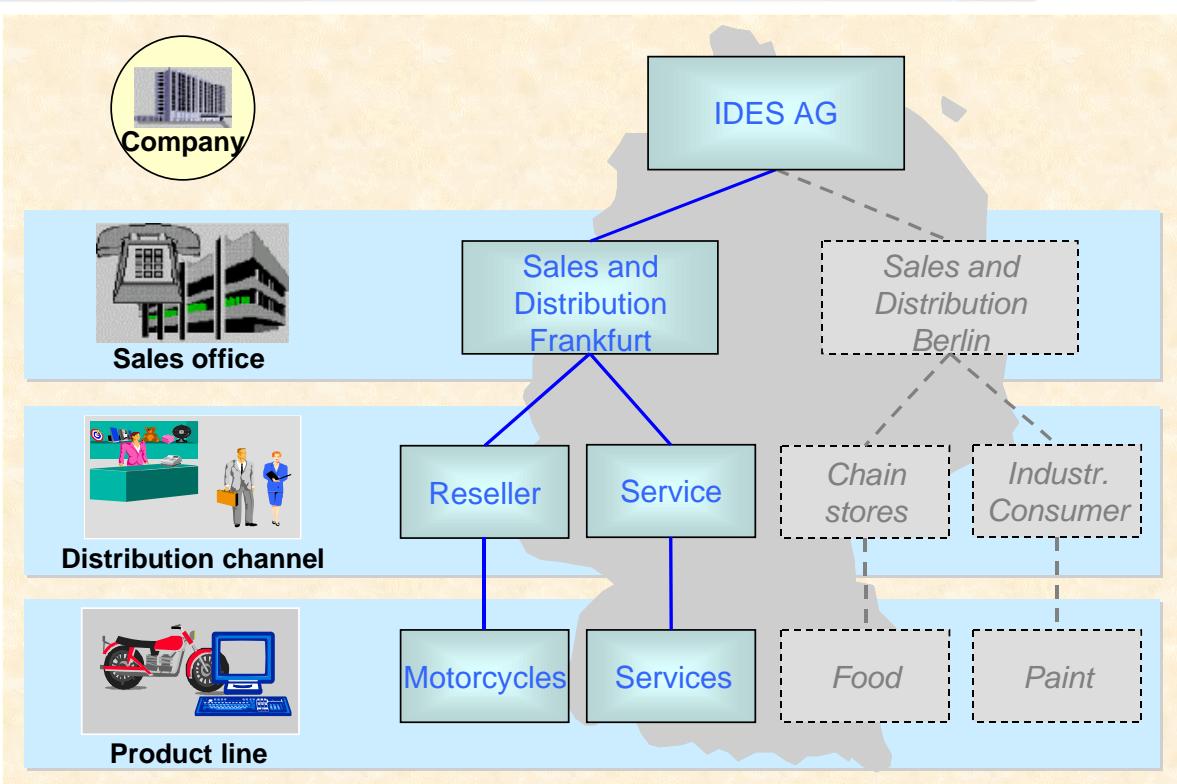


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- Defining your organizational structure in the R/3 System is an important step. It requires thorough analysis of how your organization wants to run your business.
- The standard R/3 System contains the IDES case company which is completely represented in the R/3 System. IDES means *Internet Demonstration and Evaluation System*.
- Both the system demos of the instructor and the exercises for this training course use this case company.
- The consolidated group, the IDES Holding AG, is divided into several independently operating subsidiaries. The companies that are relevant for this course belong to these subsidiaries: IDES AG in Frankfurt and IDES US INC in New York.

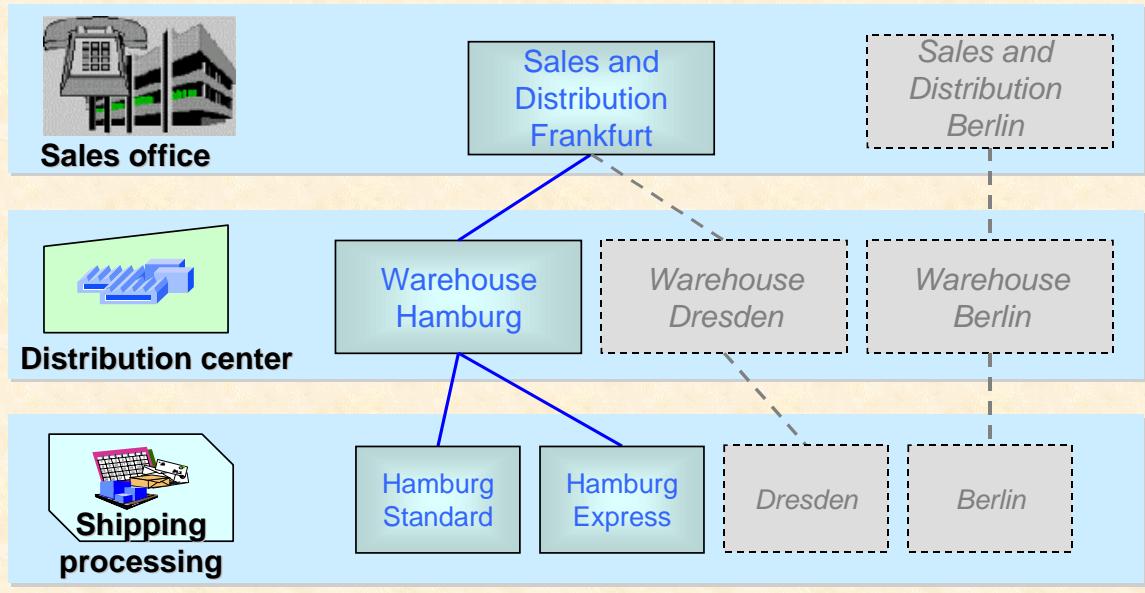
Sales and Distribution Structures of IDES AG

SAP



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IDES AG



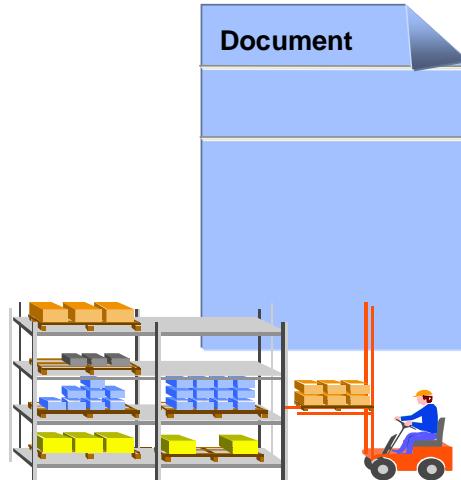
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■ **Note:**

This diagram shows the delivery structure within IDES AG, independently from the R/3 system (using general business terms).

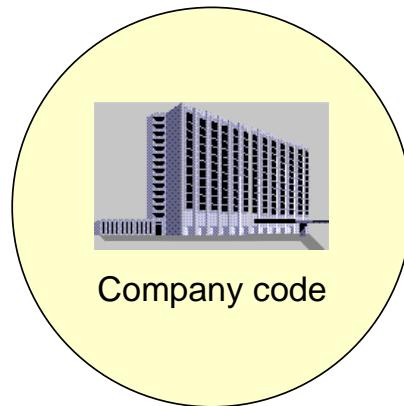
- Before IDES AG confirms an order for a customer, they check from which warehouse distribution center the material ordered is to be delivered and whether sufficient stock is available.
- The goods delivery is usually organized at these locations. These facilities are not available at every location where products are manufactured.
- In order to fulfill very urgent customer requests, the warehouse distribution center in Hamburg can arrange express deliveries.

- **Company code**
- **Sales Area**
 - **Sales organization**
 - **Distribution channel**
 - **Division**
- **Plant**
- **Storage location**
- **shipping point**



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- Organizational units in the R/3 System represent the structure of an enterprise organization. Organizational units represent the legal and organizational views of an enterprise.
- The Sales and Distribution module uses some organizational units that can only represent sales and distribution processes, such as sales organization, distribution channel, division or shipping point. Other organizational units, such as company code or plant, are used in Sales and Distribution and in other modules in the R/3 System.
- You can represent your enterprise structure using organizational units based on your business processes.
- This is not a complete list of all organizational units relevant for the sales and distribution processes in the R/3 System.



- **legal entity and independent accounting unit**
- **at company code level, you create:**
 - ➔ **balance sheets required by law**
 - ➔ **profit and loss statement**

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- For a company code, a complete independent accounting unit can be represented as the smallest organizational unit in external accounting.
This includes entry of all accountable transactions and the creation of all proofs for a legally required individual account closing, such as the balance sheets and the profit and loss statement.
- Examples of a company code are: a company within a corporate group or a subsidiary.



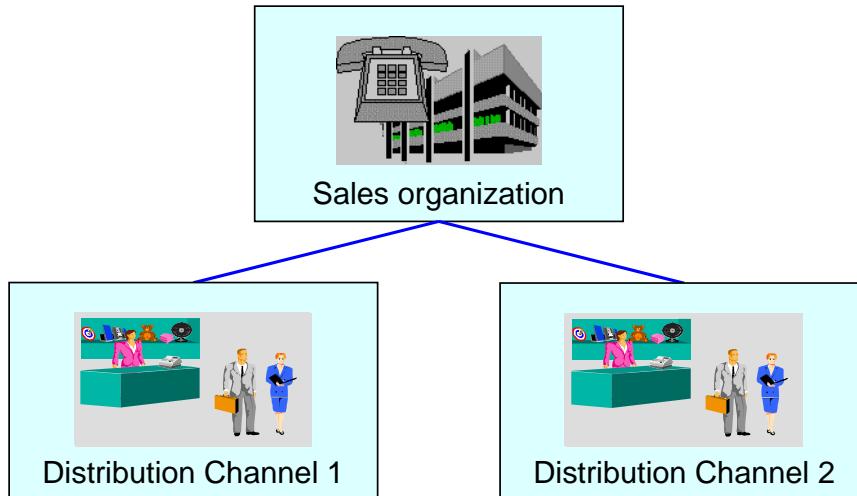
Sales organization

Responsible for:

- **distributing goods and services**
- **negotiating sales conditions**
- **product liability and rights of recourse**

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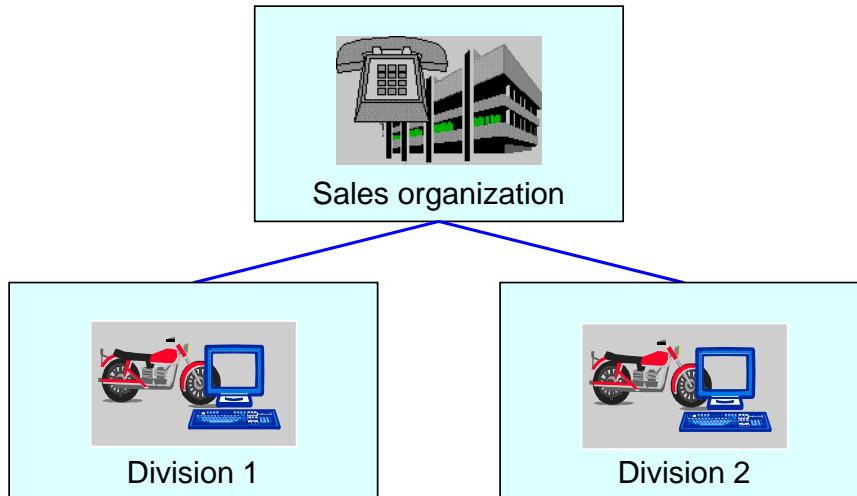
- The sales organization is an organizational unit in Logistics which groups the enterprise according to the requirements of sales and distribution. A sales organization is responsible for distributing goods and services. Therefore, it is also liable for the sold products and responsible for the customers' rights of recourse.
- The sales organization is also used to take, for example, a regional, national or international subdivision of the market into account.
- A sales organization is **uniquely** assigned to a company code. More than one sales organization can be assigned to a company code. If you use the Sales and Distribution module, you need at least one sales organization.
- You maintain your own master data for a sales organization. In the sales statistics, the sales organization is the highest summation level. All items in a sales and distribution document, that is, all items of an order, an outbound delivery or a billing document, belong to a sales organization.



- Is a means through which sales materials reach the customer
- Represents your strategies to distribute goods and / or services to your customer
- For example: wholesale trade, retail trade, internet trade, ...

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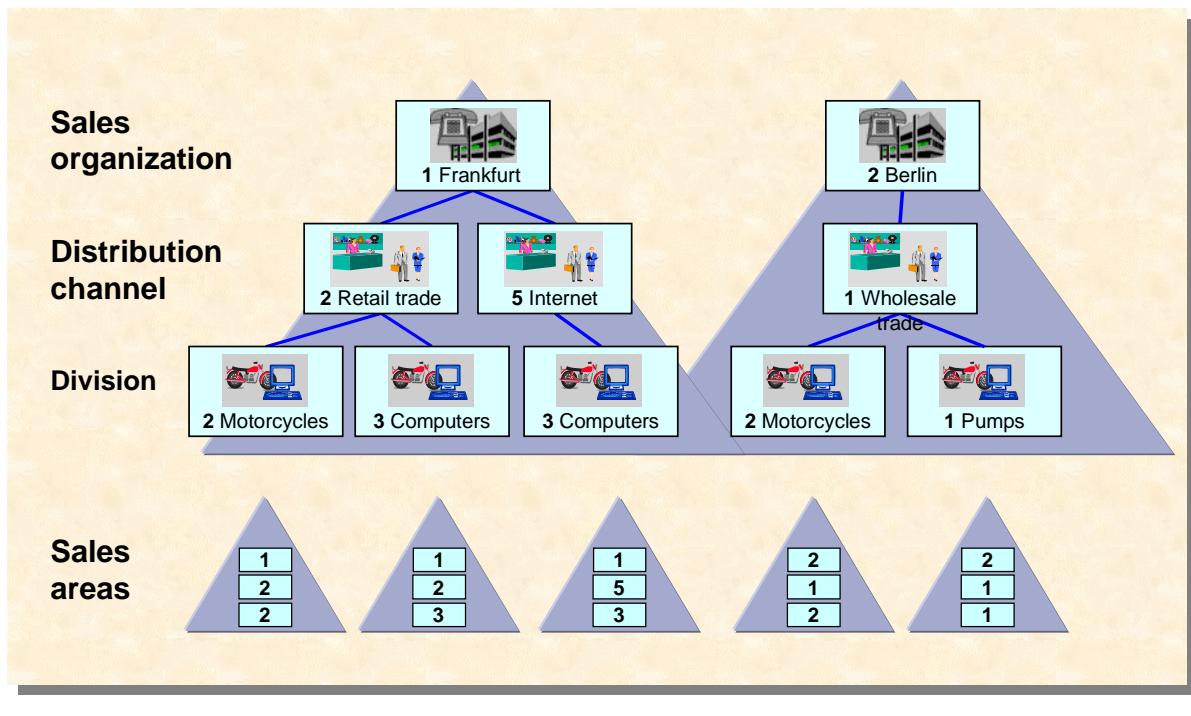
- A distribution channel is a means through which salable materials or services reach the customer.
- Several distribution channels can be assigned to a sales organization. If you use the Sales and Distribution module, you need at least one distribution channel. For example, it is used to:
 - Define responsibilities,
 - Achieve flexible pricing and
 - Differentiate sales statistics.



- **represents a product line**
- **for example: motorcycles, spare parts, services, ...**

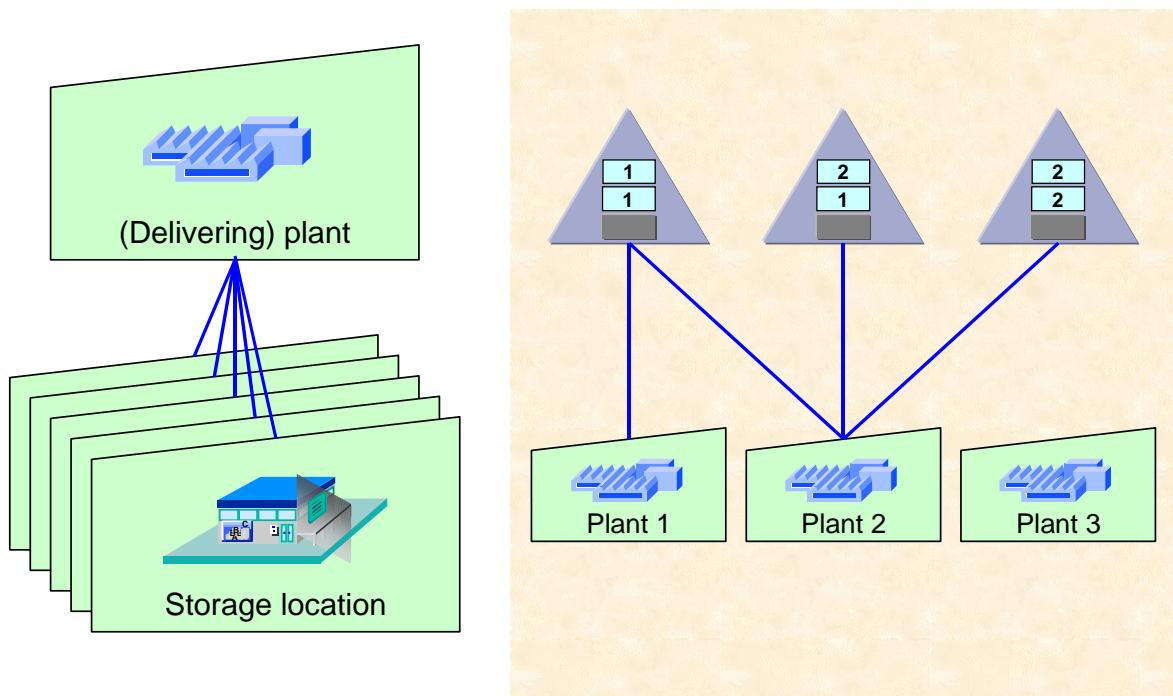
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- A division is used to group materials and services.
- A sales organization can have several divisions assigned to it, for which it is responsible. If you use the Sales and Distribution module, you will need at least one division.
- The system uses the division to determine the sales areas a material or a service is assigned to.
- A division can, for example, represent a product group. Therefore, you can, for example, restrict price agreements with a customer to a certain division. You can also conduct statistical analysis by division.



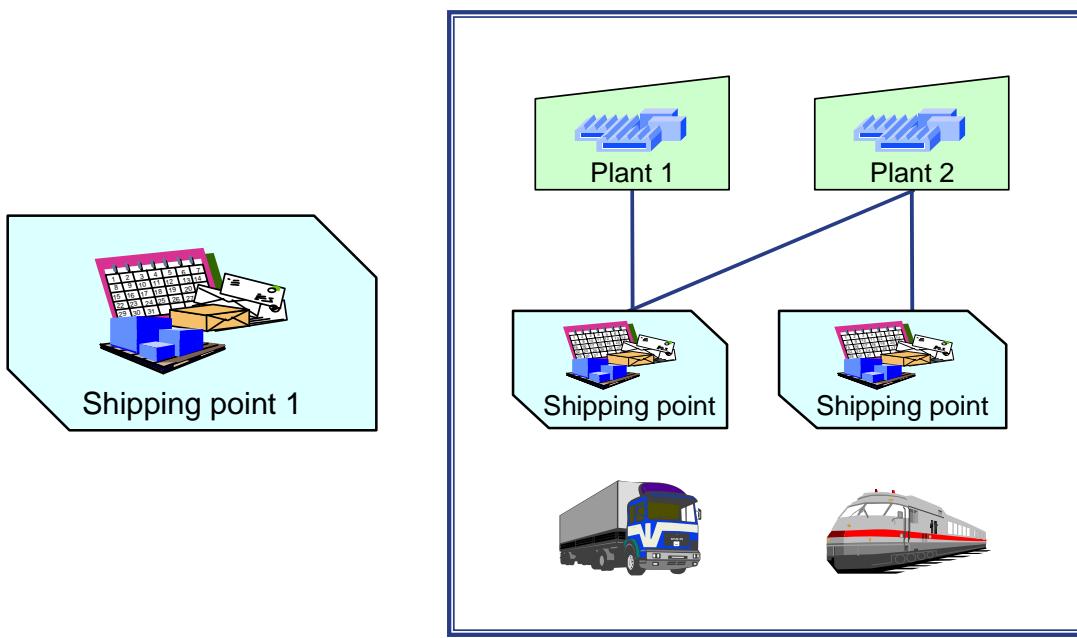
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- A sales area is a combination of the sales organization, distribution channel, and division. It defines the distribution channel a sales organization uses to sell products from a certain division.
- Each sales and distribution document is assigned to exactly one sales area. This assignment cannot be changed.
- A sales area can belong to only one company code. This relationship is created by assigning the sales organization.
- During the processing of sales and distribution documents, the system accesses various master data, according to the sales area. This master data includes, for example, customer master data, material master data, prices, and discounts. In addition, the system carries out several checks concerning the validity of certain entries according to the sales area.
- Note:
A simple organizational structure can be better than a complex one. For example, it simplifies updating master data. Do not define complex organizational structures in order to have detailed reporting options. Use fields on the master data screens.



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- The plant is a location where material stock is kept. In the R/3 System, a plant can, for example, represent a production facility or simply a grouping of locations (storage locations) in physical proximity.
- Plant and storage location are organizational units that can be used by all logistic areas of the R/3 System.
 - Materials management is primarily concerned with the material flow. From a materials management point of view, a plant is, above all, a location where material stock is kept.
 - In production, a plant can represent a manufacturing facility.
 - In sales and distribution, a plant represents the location from which materials and services are distributed and corresponds to a distribution center. The relevant stocks are kept here.
 - If you sell a service, a plant can represent the location services are rendered from (that is, an office).
- In sales and distribution, the plant has a central function:
 - You have to create at least one plant in order to be able to use the Sales and Distribution module.
 - A plant must be uniquely assigned to a company code.
 - The assignment between sales organizations and plants does not have to be unique.
 - The plant is essential for determining the shipping point.

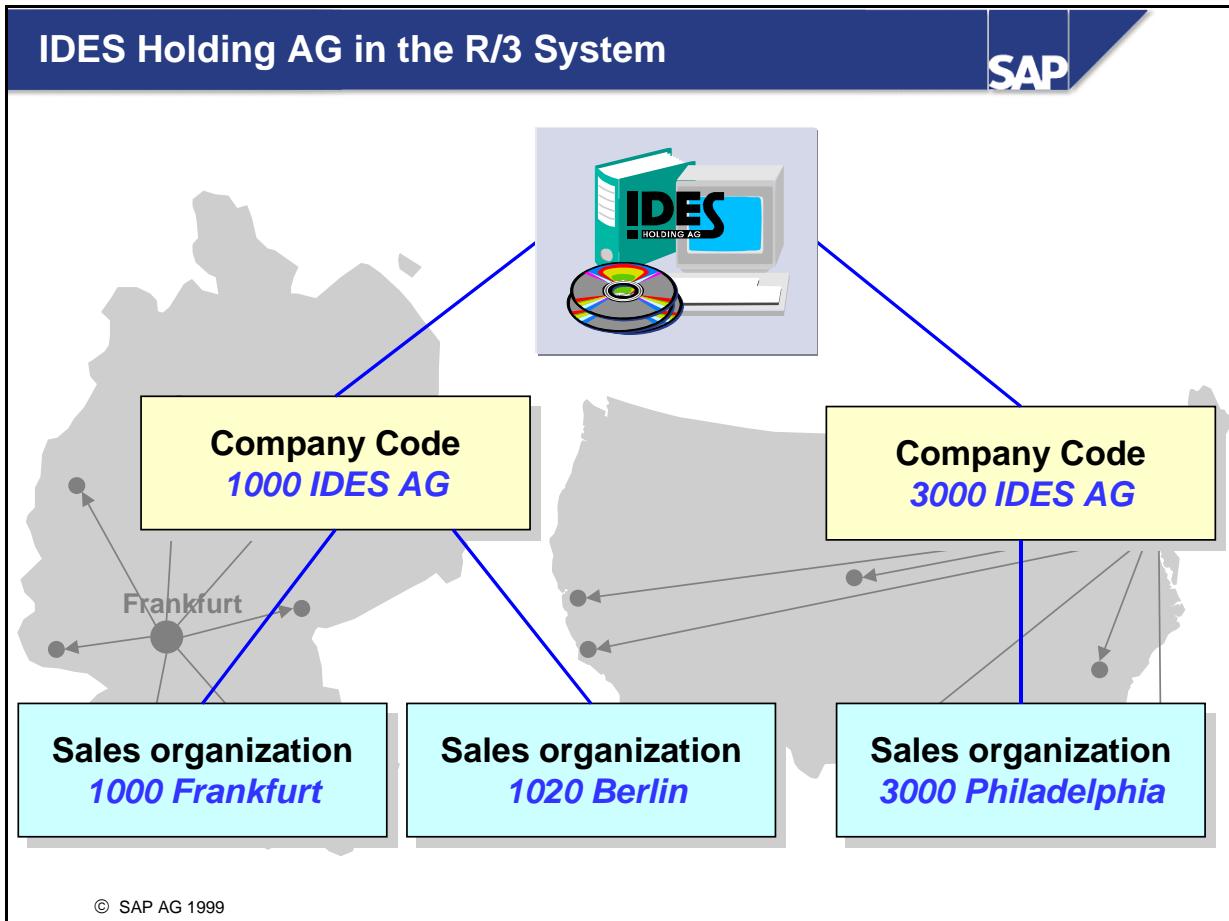


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- Shipping is an integrated module of sales and distribution processing. The shipping point is the highest-level organizational unit of shipping that controls your shipping activities. Each outbound delivery is processed by one shipping point.
- The shipping point can be a loading ramp, a mail depot, or a rail depot. It can also be, for example, a group of employees responsible (only) for organizing urgent deliveries.
- You assign a shipping point in the SAP System at plant level. A shipping point is a physical place and should be near the delivering plant. More than one shipping point can be assigned to a plant. You can also assign several plants to a shipping point. This can also be appropriate for plants in physical proximity.

IDES Holding AG in the R/3 System

SAP



- IDES Holding AG is a globally operating group.
- The subsidiaries of IDES Holding AG are organized according to country-specific situations and laws. Two of these subsidiaries are IDES AG in Frankfurt, Germany, and IDES US INC in New York.

Structure in the R/3 System:

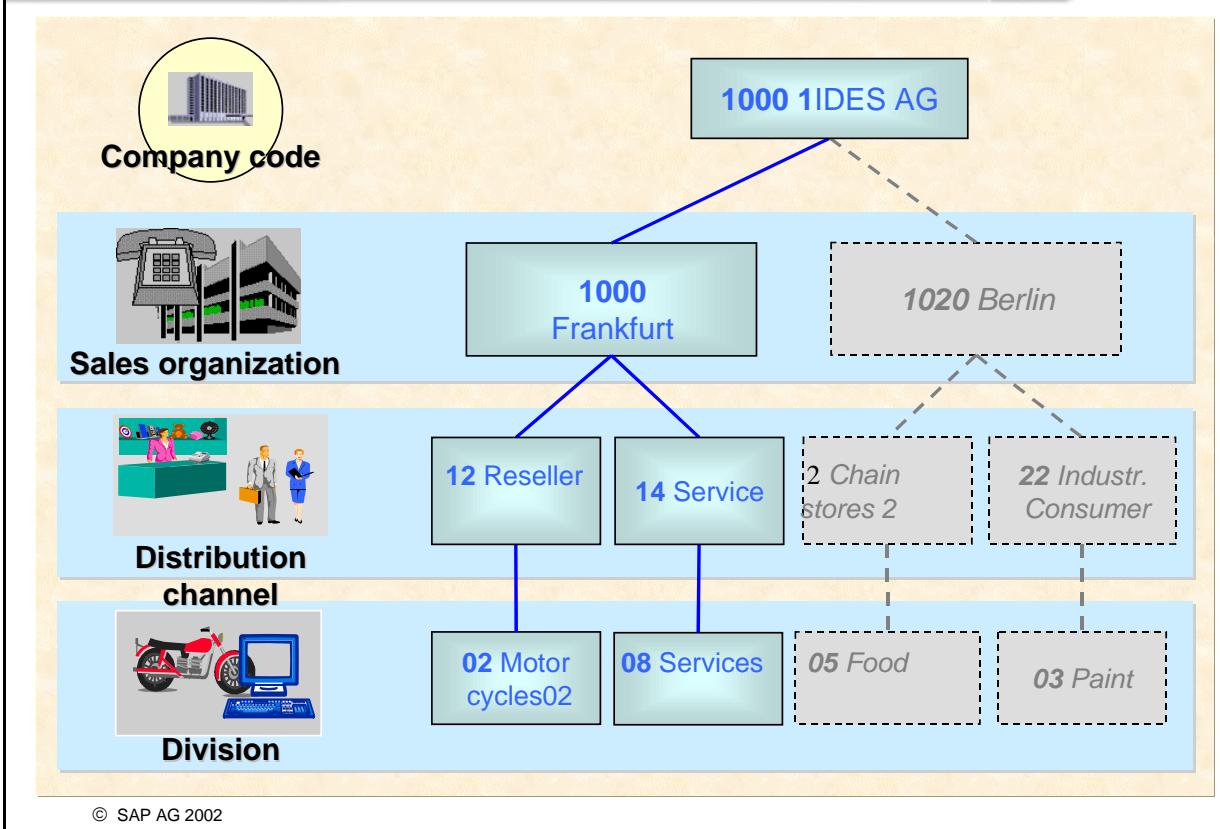
- Company code 1000 IDES AG
- Company code 3000 IDES US INC
- Sales and distribution of IDES AG in Germany is organized at two different sales facilities, each of which has its clearly defined area of responsibility.

Structure in the R/3 System:

- Sales organization 1000 Frankfurt
- Sales organization 1020 Berlin
- Each sales organization is responsible for sales in its country and sets its own distribution and pricing policies.

Sales Areas of IDES Holding AG in the SAP System

SAP

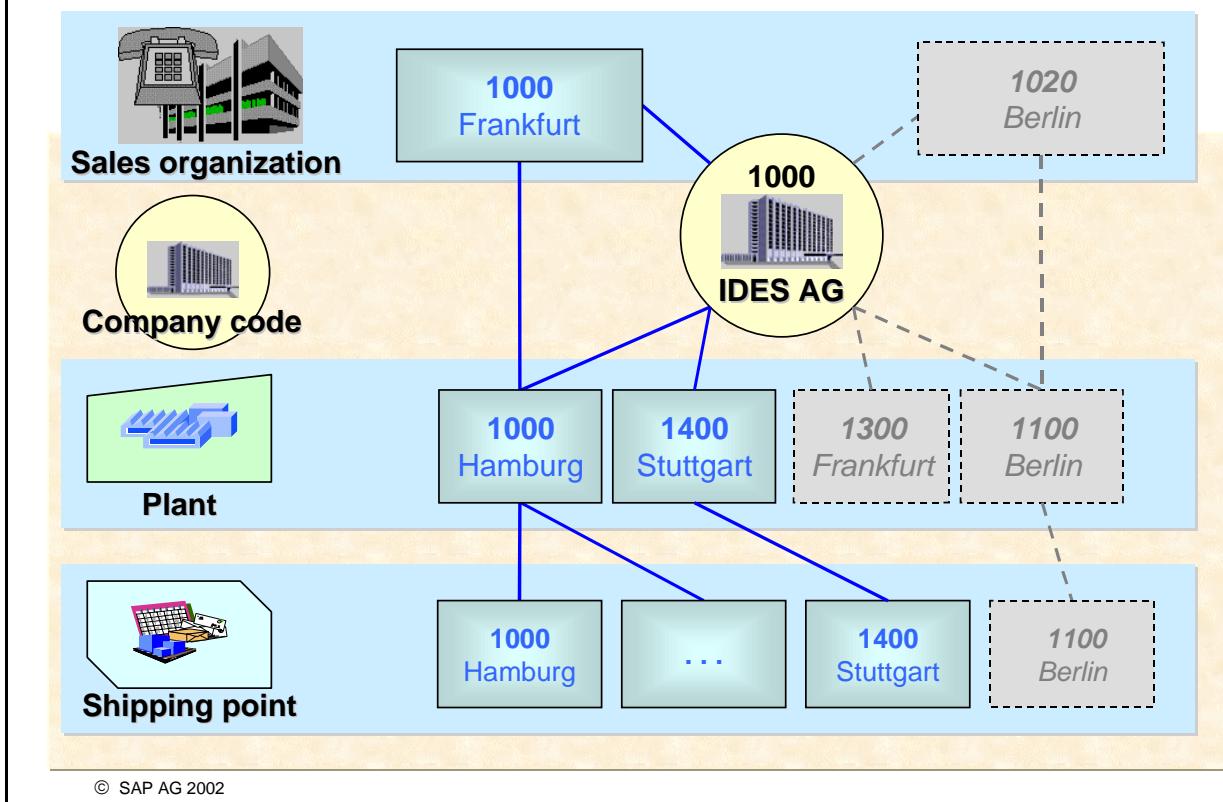


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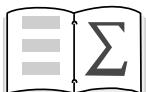
- In the SAP System, sales and distribution processes are always uniquely assigned to a sales area.
- To represent the different ways through which goods reach the customer, the appropriate distribution channels were set up. In this course, the IDES AG sales areas that contain the following distribution channels are used:
 - 12 Resale
 - 14 Service
- To represent the different product lines , the appropriate divisions were set up. In this course, the sales areas that contain the following divisions are used:
 - 00 Cross-division
 - 02 Motor cycles
 - 08 Services
- Sales areas were set up on the basis of these sales organizations, distribution channels, and divisions. However, the combinations considered were those in which sales and distributions processes had to be represented. These include:
 - Sales organization 1000, distribution channel 12, division 00
 - Sales organization 1000, distribution channel 12, division 02
 - Sales organization 1000, distribution channel 14, division 08

The Delivery Process in IDES AG in the R/3 System

SAP



- Before IDES AG confirms an order for a customer, they check from which delivering plant the material ordered is to be delivered and whether sufficient stock is available.
- Every plant must be assigned to a company code.
The plants of IDES AG include, for example:
 - Plant 1000 Hamburg
 - Plant 1300 Frankfurt
 - Plant 1000 Hamburg
 - Plant 1400 Stuttgart
 - Plant 1100 Berlin
- In addition, delivering plants need to have been assigned to a sales organization and a distribution channel:
 - Plant 1000 Hamburg and plant 1400 Stuttgart are the delivering plants for sales organization 1000 and distribution channel 12.
 - Plant 1100 Berlin is the delivering plant for sales organization 1020 and distribution channel 20.
 - Plant 1300 Frankfurt is not a delivering plant for sales and distribution.
- The delivery is organized by various shipping points which are assigned to the delivering plants:
 - Shipping point 1000 Hamburg processes outbound deliveries from plant 1000
 - Shipping point 1100 Berlin processes outbound deliveries from plant 1100



You are now able to:

- **Describe the sales and distribution structures of IDES AG**
- **Identify organizational units in the R/3 System that are relevant for sales and distribution**
- **Describe the essential characteristics of these organizational units**
- **Form organizational structures using combinations of organizational units**
- **Explain the most important relationships between the organizational structures in sales and distribution**

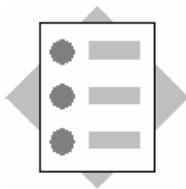
Exercises



Unit: Enterprise Structures in Sales and Distribution

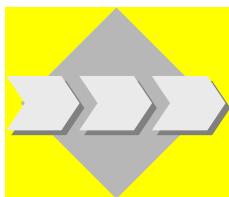
Organizational units in the SAP System.

- Sales and distribution structures of the case company IDES AG



At the conclusion of these exercises, you will be able to:

- Explain the organizational units and their relationships which are relevant for sales and distribution
- Describe the sales and distribution structures of the case company IDES AG



The case company IDES AG is a globally operating group. They manufacture products (for example, motorcycles and spare parts) for multiple product lines at various locations. These materials, as well as other materials that are not produced in-house, are distributed by several sales facilities using multiple distribution channels.

1-1 Organizational units in Sales and Distribution.

1-1-1 Organizational units in the R/3 System represent the structure of an enterprise organization.

Which organizationl units represent sales and distribution only ?

- 1-1-2 Which organizational unit can you use in the SAP system to represent a sales facility or a sales subsidiary?
-

- 1-1-3 Which organizational units can you use in the SAP System to represent a means to ship goods to the customer (for example, factory sales, whole sales trade or retail trade)?
-

- 1-1-4 Which organizational units can you use in the R/3 System to represent multiple product lines and to group materials (for example, vehicles, accessories or spare parts)?
-

- 1-1-5 Which organizational units can you use in the R/3 System to organize and process outbound deliveries from different places (for example, loading ramp or rail depot)?
-

1-2 Cross-sales organizational units.

- 1-2-1 A corporate group can be divided up into several companies or subsidiaries. Which organizational unit can you use in financial accounting to represent a legal entity and an independent accounting unit in the R/3 System?
-

- 1-2-2 In a company, you can manufacture and store materials in different places. Which organizational unit can you use in the R/3 system to represent a production facility or a distribution center?
-

- 1-2-3 Within a plant, material storage can be divided up according to various locations or rooms. Which organizational unit can you use in the R/3 system to represent such a location or room?
-

1-3 Assigning organizational units.

- 1-3-1 Which organizational units does a sales area consist of?
-
-
-

- 1-3-2 Can you assign more than one distribution channel to a sales organization?
-

- 1-3-3 Can you assign a distribution channel to multiple sales organizations?
-

1-3-4 Which organizational unit is a sales organization assigned to in order to represent the connection of sales and distribution processes to financial accounting?

1-3-5 Can you assign a sales organization to multiple company codes?

1-3-6 In a sales organization, can you sell materials from multiple delivering plants?

1-3-7 To which organizational unit do you assign a shipping point?

1-3-8 Can you assign a shipping point to multiple plants?

1-3-9 In which organizational unit are storage locations grouped together?

1-4 Organizational structures of IDES AG.



You can answer these questions using the course material; you will not need the SAP System.

- 1-4-1 The subsidiaries of IDES Holding AG are organized according to country-specific situations and laws. Hierzu gehören in Deutschland die IDES AG und in den USA die IDES US INC. Mit welcher Organisationseinheit und Nummer sind die beiden Tochtergesellschaften im R/3-System abgebildet?

- 1-4-2 Two sales facilities organize the sales and distribution process for IDES AG in Germany (for this training course). Which organizational unit and number is used to represent the two sales facilities in the SAP System?

- 1-4-3 Which distribution channels does sales organization 1000 use (for this training course)?

- 1-4-4 Which sales areas were set up for sales organization 1000 (for this training course)?

- 1-4-5 Which plants are assigned to company code 1000 IDES AG (for this training course)?

- 1-4-6 Which shipping point processes outbound deliveries from plant 1000 Hamburg (for this training course)?

1-5* Organizational units in the R/3 System.

For this training course, only some of the organizational units in the SAP IDES System are used.

When you create a sales order, you always have to enter a sales area (sales organization, distribution channel, division).

- 1-5-1 Check in the system, which sales organizations exist for sales order entry for the USA: Write down three examples.



You enter a sales order using the following menu path: Logistics → Sales and distribution → Sales → Order → Create. Place the cursor on the input field for the sales organization and display the possible input values using the F4 input help.

- 1-5-2 Check in the system, which distribution channels exist for sales organization 1000: Write down three examples.



Place the cursor on the input field for the distribution channel and display the possible input values using the F4 input help.

- 1-5-3 Check in the system, which divisions exist for sales organization 1000 and for distribution channel 12. Write down three examples.



Place the cursor on the input field for the sales organization and display the possible input values using the F4 input help.

Solutions



Unit: Enterprise Structures in Sales and Distribution

-Organizational units in the R/3 System

- Sales and distribution structures of the case company IDES AG

1-1-1 Sales Area

Sales organization

Distribution channel

Division

shipping point

The combination of sales organization, distribution channel and division makes a sales area.

Apart from these, there are also other organizational units that are used for sales and distribution. Other organizational units, such as company code, plant, or storage location, are not only used by sales and distribution, but also by other modules (for example, financial accounting, materials management, or production).

1-1-2 Sales organization

1-1-3 Distribution channel

1-1-4 Division

1-1-5 shipping point

1-2-1 Company code

1-2-2 Plant

1-2-3 Storage location

- 1-3-1 A combination from sales organization, distribution channel, and division forms a sales area.
 - 1-3-2 Yes. You can assign more than one distribution channel to a sales organization.
 - 1-3-3 Yes. You can assign a distribution channel to multiple sales organizations.
 - 1-3-4 To the company code.
 - 1-3-5 Depends on the results of scheduling. A sales organization is assigned to only one company code. However, more than one sales organization can be assigned to a company code.
 - 1-3-6 Yes. In a sales organization, you can sell materials from multiple delivering plants.
 - 1-3-7 The shipping point is assigned to a plant.
 - 1-3-8 Yes. A shipping point can also be assigned to multiple plants. However, this might only be appropriate when the plants are in physical proximity to each other.
 - 1-3-9 To the plant.
-
- 1-4-1 Company code 1000: IDES AG Germany
Company code 3000: IDES US INC USA
 - 1-4-2 Sales organization 1000: Frankfurt
Sales organization 1020: Berlin
 - 1-4-3 Distribution channel 12: Resale
Distribution channel 14: Service
 - 1-4-4 Sales organization 1000, distribution channel 12, division 00
Sales organization 1000, distribution channel 12, division 02
Sales organization 1000, distribution channel 14, division 08

1-4-5 Plant 1000: Hamburg

Plant 1100: Berlin

Plant 1300: Frankfurt

Plant 1400 Stuttgart

1-4-6 Shipping point 1000: Hamburg

1-5-1 ***Logistics → Sales and distribution → Sales → Order → Create***

Place the cursor on the input field for the sales organization and display the possible input values using the F4 input help.

Sales organization for the USA:

3000 USA Philadelphia

3020 USA Denver

R300 Retail USA

S300 Service USA

1-5-2 Place the cursor on the input field for the distribution channel and display the possible input values using the F4 input help.

Distribution channels for sales organization 1000:

01 direct sales

10 Final customer sales

12 Resale

14 Service

16 Factory sales

1-5-3 Place the cursor on the input field for the sales organization and display the possible input values using the F4 input help.

Divisions for sales organization 1000 and distribution channel 12:

00 Cross-division

02 Motor cycles

04 Lighting

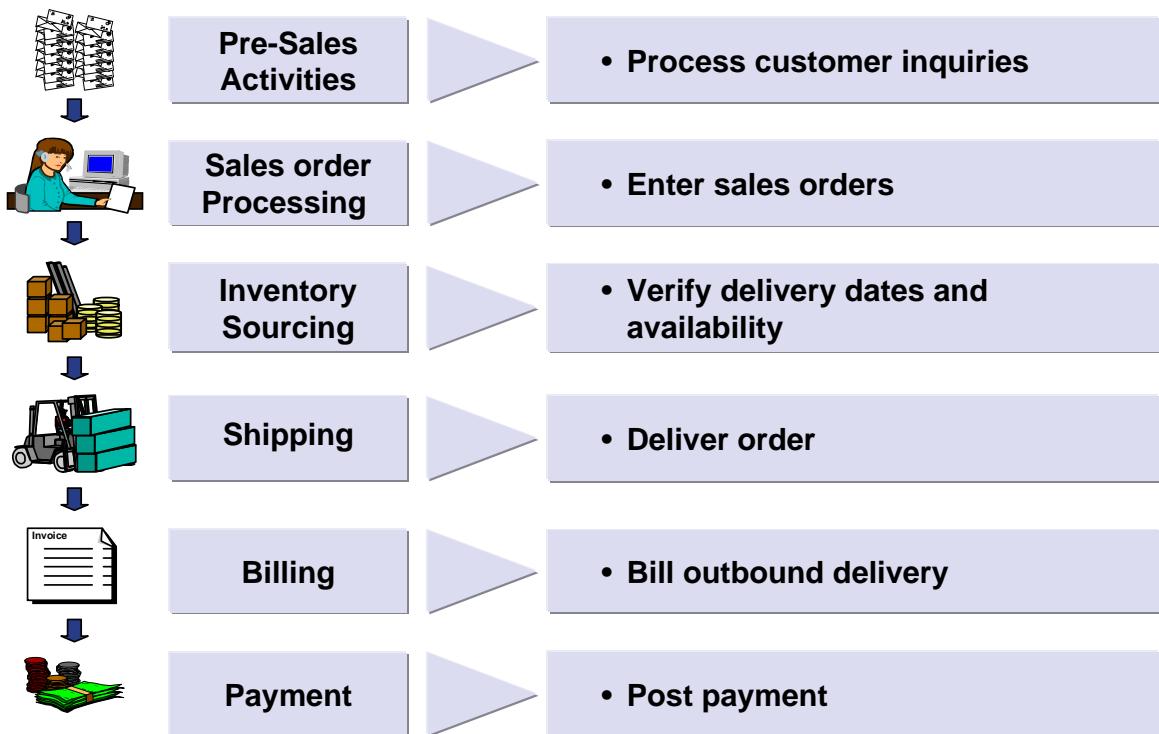
07 High Tech

10 Vehicles

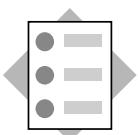
Overview of Sales Processes

SAP

Contents:



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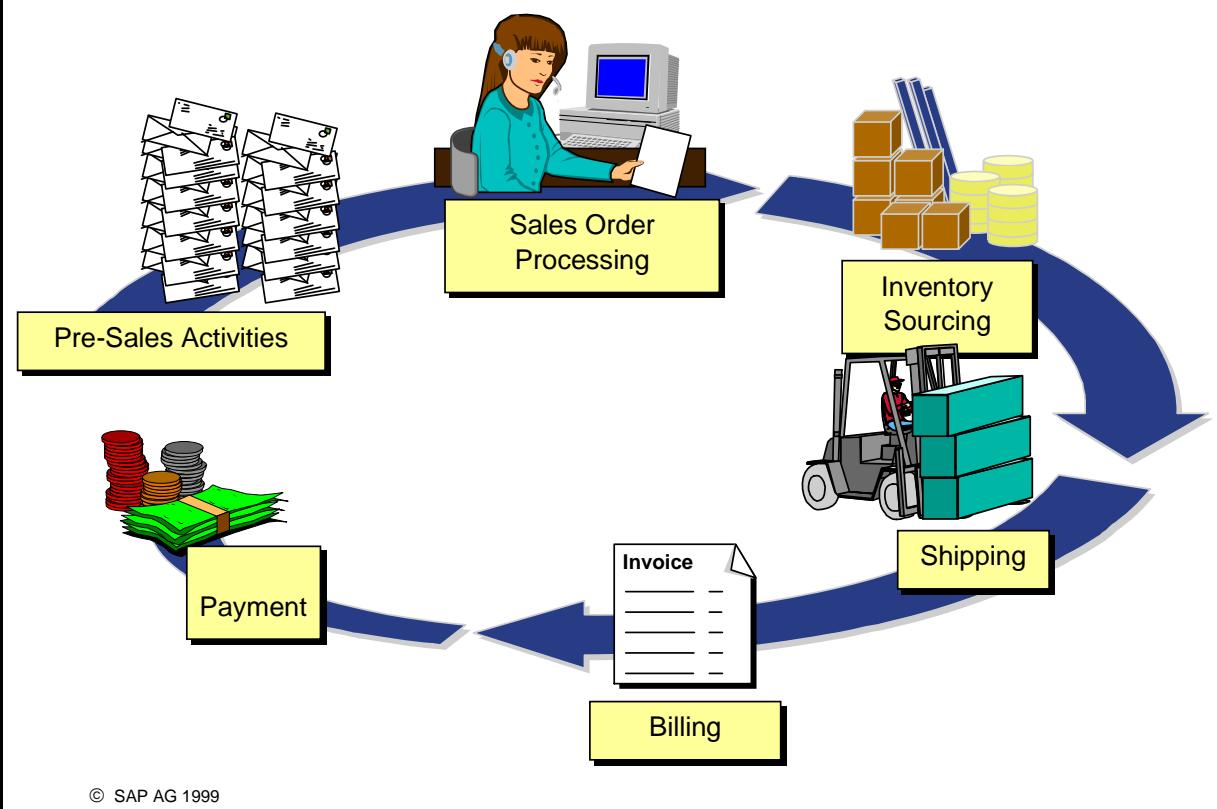


At the conclusion of this unit, you will be able to:

- Explain the process chain for sales order processing
- Create a customer sales order
- Trigger delivery of a sales order
- Pick and post goods issue
- Invoice a customer for the delivery
- Post the payment to the customer's account

Sales Processes: Overview Diagram

SAP

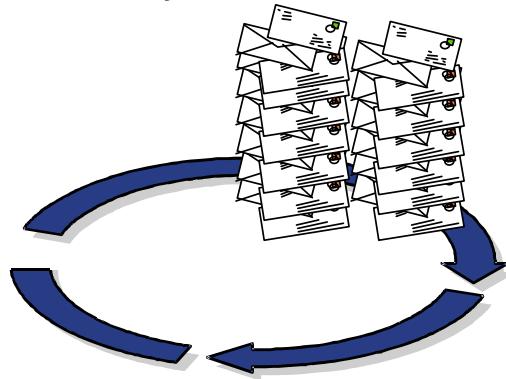


- Effective sales order processing connects all activity to customer demand in a series of integrated processes. The SAP System application component Sales and Distribution makes this sales order processing possible. The steps in a sales process are then reproduced by electronic documents that are linked to each other.
- The SAP sales and distribution process begins with establishing and maintaining customer relationships, and ends with invoicing for delivery of goods or service provided to the customer. Posting the customer incoming payments is part of the SAP System application component Financial Accounting.
- The Customer Order Management cycle can begin with Pre-Sales Activities. For example, in response to a customer inquiry , you create and send a quotation.
- As part of sales order processing, you create a sales document.
- During procurement, the SAP System determines the supplier of the goods, based on data that you have stored in the system. Is the supplier from one of your delivering plants, and, if so, which one? Is the supplier a third-party vendor, and, if so, which one?
- As part of shipping processing, you organize and perform the delivery of goods.
- In the billing process, you create the invoice and transfer all the necessary data into Accounting.
- As part of handling payments, you check open items and post incoming payments.



- Establishing and maintaining customer relationships
- Taking orders
- Answering customers' questions about materials, prices and delivery dates
- Scheduling based on customer requirements and material availability
- Picking and delivery of goods
- Updating material stock and material usage accounts
- Creating an invoice and updating sales accounts
- Checking open customer items and posting incoming payments

- **Establishing and maintaining customer relationships**
- **Pre-Sales activities may include:**
 - Creating and tracking customer contacts
 - Mailing campaigns
 - Answering customer questions received by e-mail, fax etc.
 - Inquiries
 - Quotations



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- Specific marketing measures, for example, direct mailing campaigns, internet campaigns, trade fair sales activities or telephone campaigns, can trigger sales processes.
- Possible sequences of such campaigns can be a non-binding customer inquiry or a request for a quotation. Inquiries and quotations help you to determine important sales-related data and can be saved as documents. If the customer then places an order, you can refer to this data.
- Use this pre-sales information to plan and evaluate your marketing and sales strategies and as a basis for establishing long term business relationships with your customers, for example by
 - Tracking lost sales
 - Recording pre-sales data to help negotiate large contracts
 - Selling goods and services to large organizations that require documentation of the entire process.

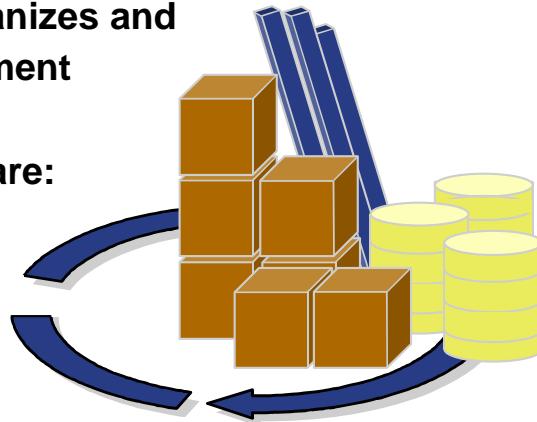
- The employees in your department *Customer Service* take orders in writing and over the phone.
- Standard orders normally contain:
 - Customer and material information
 - Pricing conditions for each item
 - Delivery dates and quantities
 - Shipping information
 - Billing information



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- A sales order is an electronic document that records your customer's request for goods or services.
- The sales order contains all information to process the customer's request during sales order processing.
- The sales component thus automatically proposes data from master records and control tables that you previously stored. As a result, possible input errors occurring during sales order processing and entering of redundant data is avoided.
- You can enter a sales order with many items on a single screen.

- In this process step in Sales and Distribution you can:
 - check the availability of the ordered goods and
 - publish the demand in materials planning
- Materials planning (MM) organizes and monitors the actual procurement process.
This includes products that are:
 - inhouse-produced or / and
 - externally-produced



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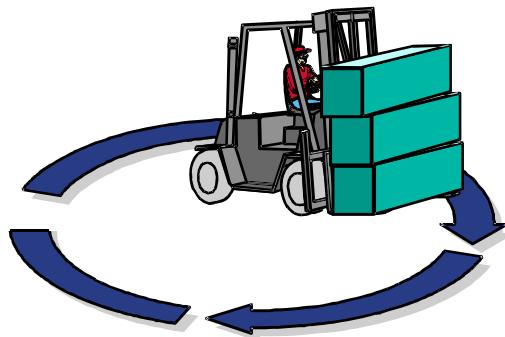
- The way in which a material is obtained for a sales order can depend on the type of material and on the sales transaction.

The procurement can, for example:

- Be from available stock
- Be guaranteed by replenishment
- Trigger make-to-order production
- Initiate the outbound delivery using external suppliers (third-party business transaction)
- Organize the outbound delivery from another warehouse (stock transfer).

- **Shipping processing supports:**

- Creating outbound deliveries
- Picking (by creating transport orders)
- Packing
- Posting the goods issue

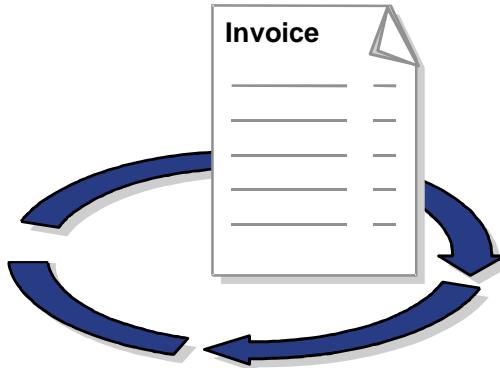


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- Shipping processing in Sales and Distribution begins when you create the delivery document. The delivery document controls, supports and monitors numerous sub processes for shipping processing such as
 - (Optional) picking and confirming (transfer requests),
 - (Optional) Packing,
 - (Optional) planning and monitoring of transport (shipment document) and
 - Posting the goods issue (goods issue documents).
- Creating a delivery document includes copying information from the sales order, such as the materials and quantities, onto the delivery document.
- Creating a transfer order includes copying data from the delivery document to the transfer order for processing within the warehouse. The transfer order is essential for controlling the movement of goods within your warehouse. The transfer order is based on a simple principle: where you are taking goods from and to, within your warehouse. There is a source location and a destination location for every transfer order.
- The posting of the goods issue can bring about a change based on a quantity basis as well as on a value basis in change stock. Changes based on a quantity basis are made on the relevant balance sheet accounts and stock change accounts in financial accounting.

- **Billing supports:**

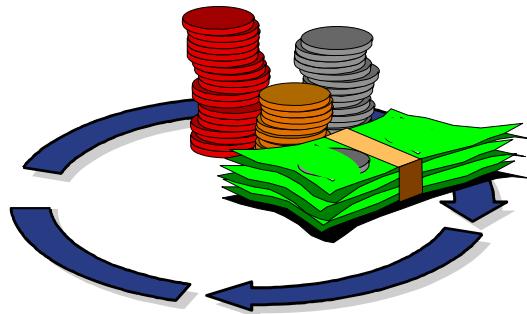
- **Creating invoices for products and services**
- **Creating credit and debit memos**
- **Cancelling previously posted billing documents**
- **Automatically transferring billing document data to accounting**



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- When you create a billing document, data is copied from the sales order and the delivery document to the billing document. Delivery items as well as order items (for example services) can be references for the billing document.
- The billing document serves several important functions:
 - It is the sales and distribution document that helps you to generate invoices.
 - The billing document serves as a data source for financial accounting (FI) to help you to monitor and process customer payments.
- When you create a billing document, the G/L accounts will normally be updated automatically. During this process, the R/3 system carries out
 - a debit posting on the customer receivables account and
 - a credit posting on the revenue account.

- **Payment is a process that is part of the application module Financial Accounting.**
- **Payment supports:**
 - Posting payments against invoices
 - Reviewing differences

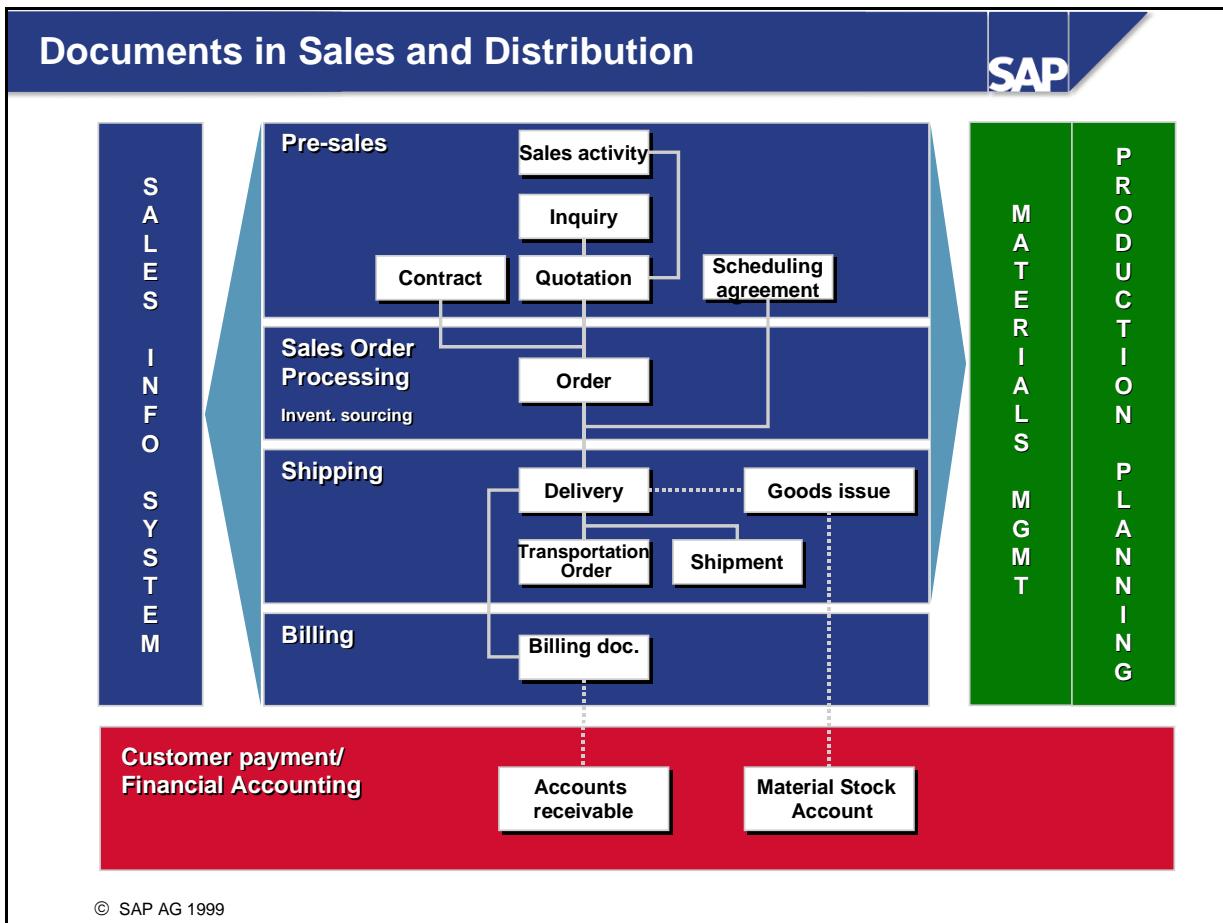


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- When you post an incoming payment, the relevant G/L accounts will be updated automatically.
- During this process, the R/3 system carries out
 - a debit posting to the cash account and
 - a credit memo to the customer receivables account.

Documents in Sales and Distribution

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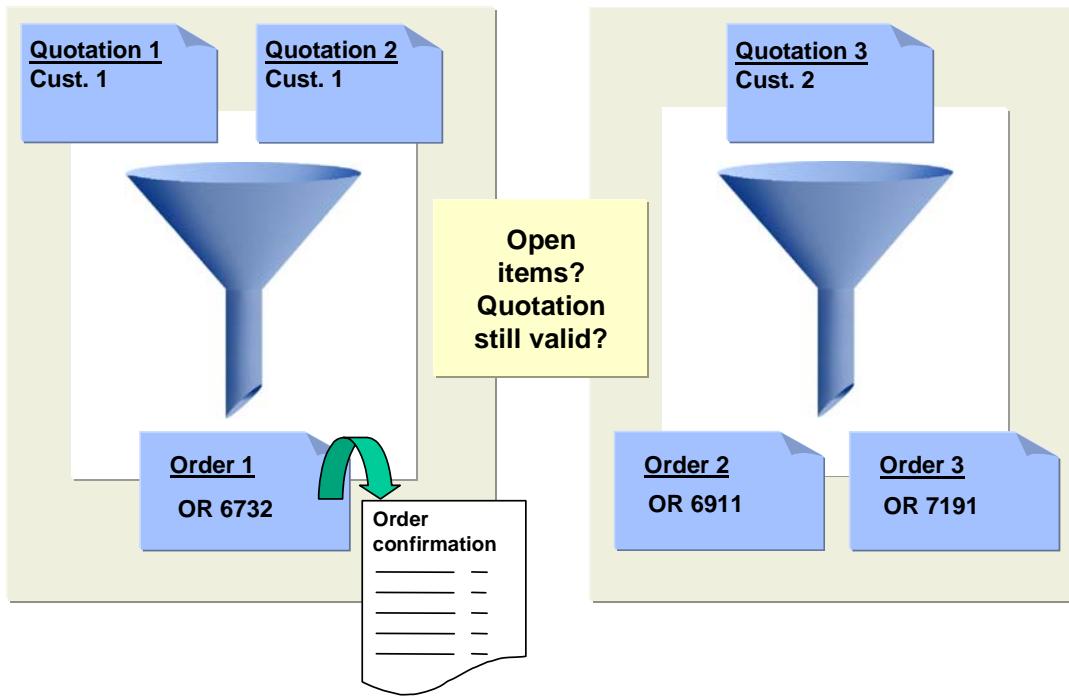


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- This slide represents the relationship between the processes in sales order processing in the SAP System. The sequence from top to bottom represents the order of events in the sales process.
- The boxes represent sales and financial accounting documents.
 - Sales activities and promotions are documents for sales support in pre-sales.
 - Sales documents are documents that are entered during pre-sales and sales order processing. Inquiries, quotations, contracts, scheduling agreements and standard orders are examples of sales document types.
 - Outbound deliveries, transfer orders and shipments are documents in shipping processing. The goods issue document contains changes involving stock and is the basis for the relevant accounting documents.
 - The billing document is a document in billing and is the basis for the relevant accounting documents.
- The left and right sections of this slide represent key interfaces between Sales and Distribution and the Sales Information System (SAP data warehouse), Materials Management and Production Planning.

Creating an Order

SAP



- A sales document is created in a sales area.
- A sales order can refer to a business transaction that already exists in the system. For example, one or more inquiries and quotations can be reference documents. In this case, the SAP System copies the relevant data to the sales order.
- A quotation can also result in several sales orders. This allows you to group all the quotations for one customer.

Header

Item 1

Schedule line 1

Item 2

Schedule line 1

Schedule line 2

Standard order

Sold-to party	2387
Ship-to party	4876

Item	Material	Quantity
-------------	-----------------	-----------------

10	1400-100	20 PC
-----------	-----------------	--------------

1	01 Nov	20 PC
----------	---------------	--------------

20	1400-200	50 PC
-----------	-----------------	--------------

1	01 Nov	20 PC
----------	---------------	--------------

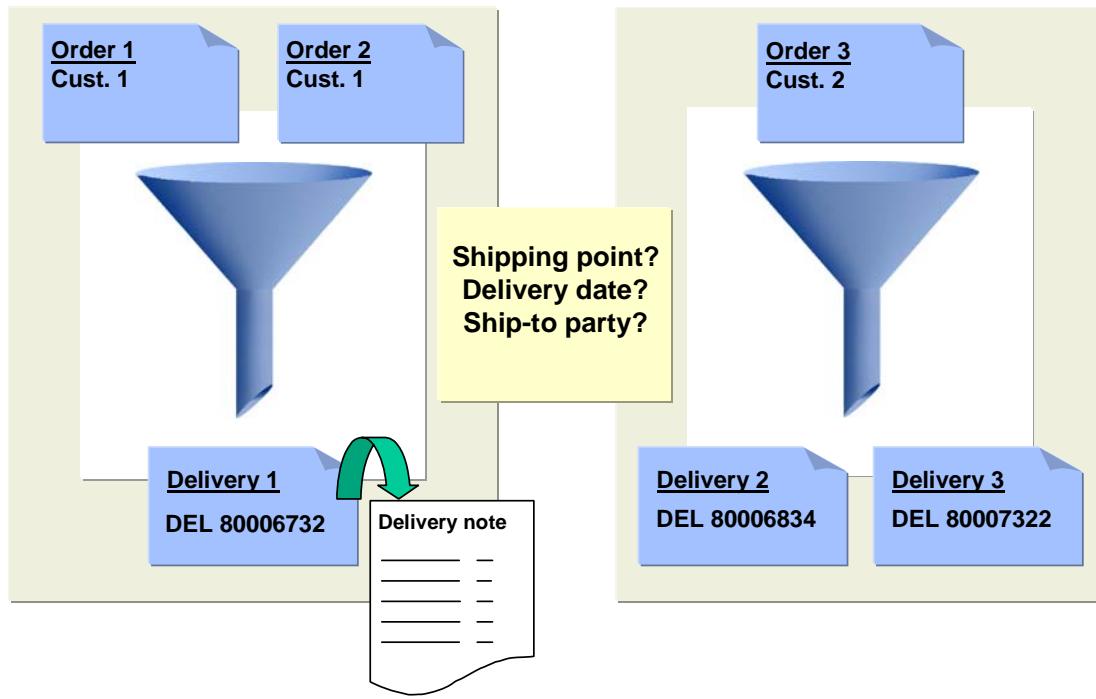
2	01 Jan	30 PC
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- A sales document is grouped into three levels: header, item and schedule line. Data is distributed on these levels as follows:
 - Sales document header
The data in the document header is valid for the entire document. This includes, for example, customer-related data.
 - Sales document items
Each item in the sales document contains its own data. This includes, for example, data about the material and quantities ordered.
Each sales document can have several items, while individual items can be controlled differently. Examples include material item, service item, free-of-charge item or text item.
 - Item schedule lines
Schedule lines contain delivery quantities and delivery dates. They belong uniquely to an item. Every item that has a subsequent outbound delivery in the sales and distribution process must have at least a schedule line. The item can have several schedule lines, for example when the quantity ordered is to be delivered in several partial deliveries at different times.
- To process the sales documents efficiently, the data can be displayed and processed in different views. The views are grouped into overview, header and item screens. A new sales document is entered on an overview screen.

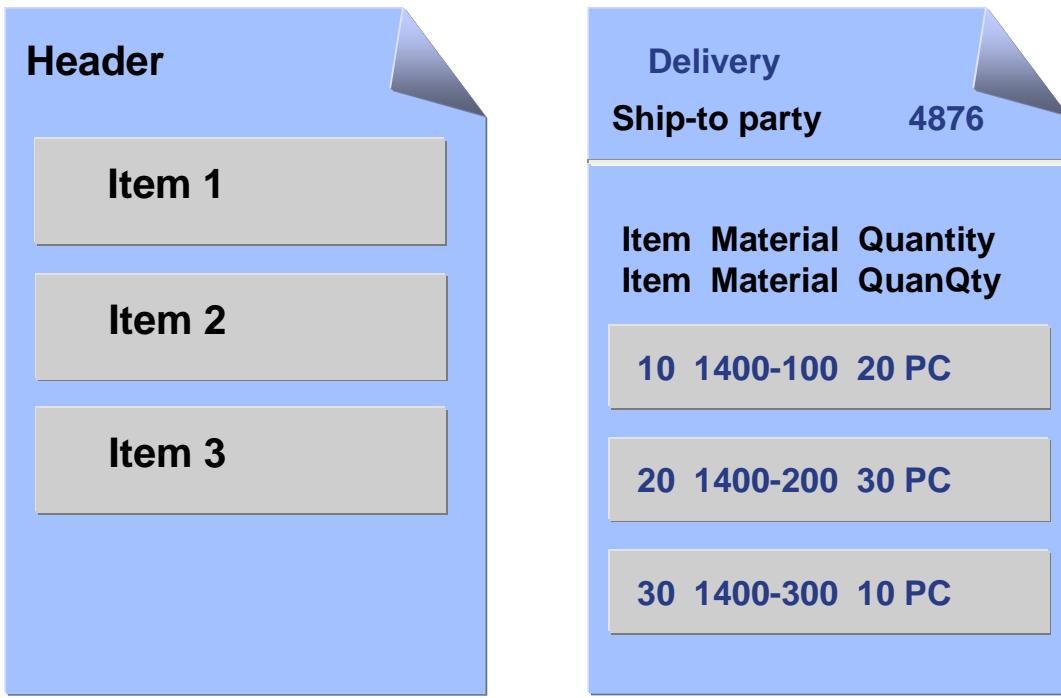
Creating an Outbound Delivery

SAP



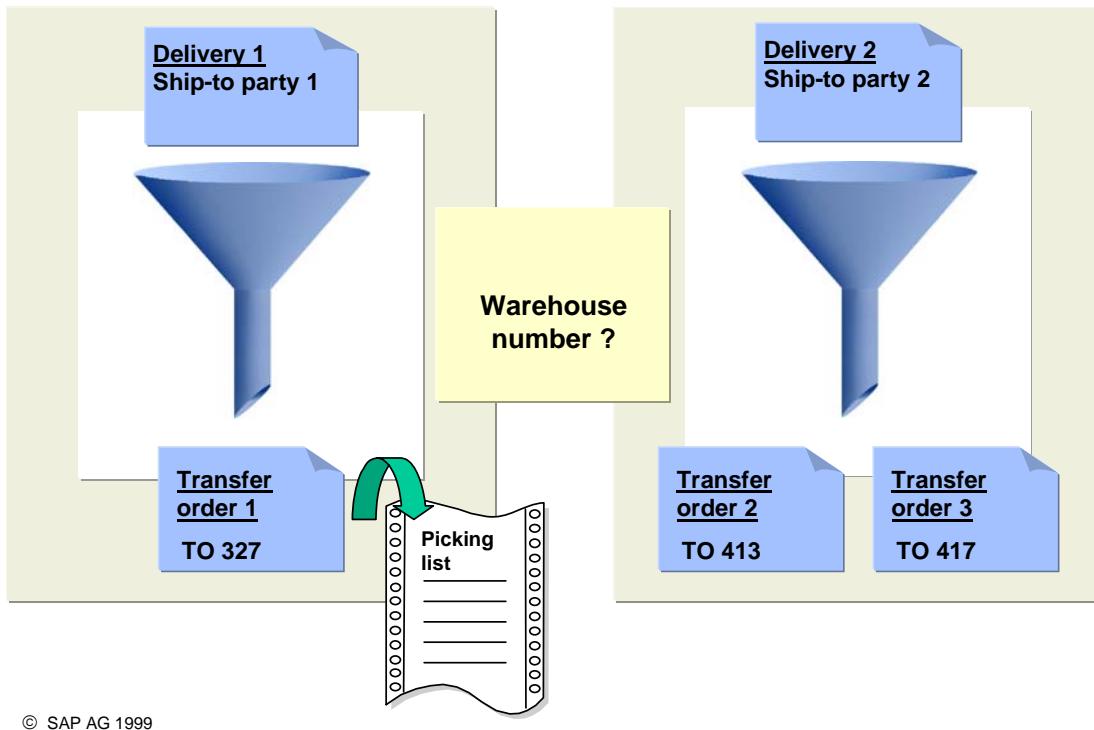
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- You can create an outbound delivery in a shipping point for orders that are due for delivery. The SAP R/3 System copies the relevant data from the order to the outbound delivery.
- You can create one or several outbound deliveries from the order. You can also combine items from several orders into one outbound delivery. To combine them successfully, the orders must all have the same characteristics that are essential for the shipping process, for example:
 - shipping point
 - Due date
 - Ship-to address
- The SAP R/3 System can create deliveries either on-line or as a background job to be executed during off-peak hours.



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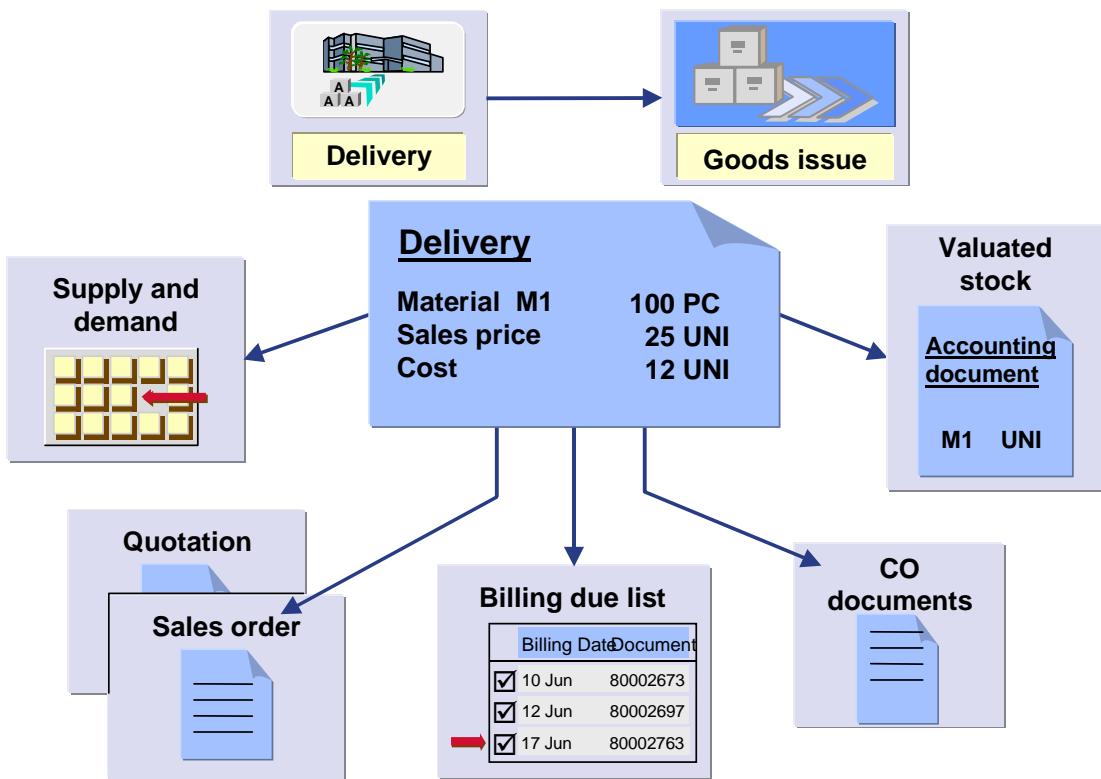
- A delivery document is grouped into two levels: header and item. The data is distributed across these levels as follows:
 - Delivery document header
The data for the document header is valid for the entire document. This includes, for example, data for the ship-to party and schedules for shipping processing.
 - Delivery document item
Each item in the sales document contains its own data. This includes data about the material, quantities and weights as well as stock information.
Each delivery document can have several items. The items can be controlled differently. Examples include material item, free-of-charge item or text item.
- The delivery document does not contain schedule lines. Each schedule line in the sales document can become an item in the delivery document.
- To process delivery documents efficiently, the data can be read and processed in different views. The views are grouped into overview, header and item screens.



- You create a transfer order for an outbound delivery.
- A transfer order is created for a warehouse number. During this process, only the deliveries that are necessary for picking are taken into account. The R/3 System copies the relevant data from the delivery.
- The R/3 System can combine several outbound deliveries into a group of transfer orders, as long as these deliveries all have the same warehouse number. Selection for outbound delivery can be further restricted, for example via the picking date and by choosing certain shipping points.
- In order to optimize picking, you can create picking lists which include all relevant deliveries. In order to relieve the work for the picker, you can sort the list according to storage bin and material and also sum up the quantities per material.
- The R/3 System can create transfer orders either on-line or as a background job to be executed during off-peak hours.

Posting Goods Issue

SAP

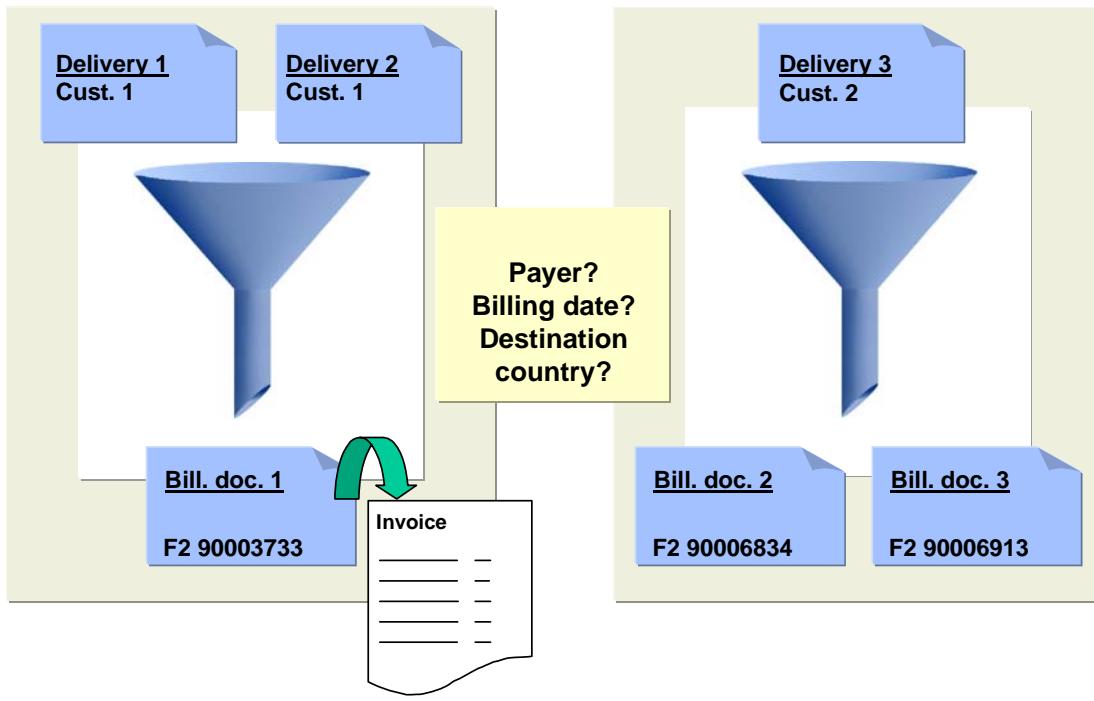


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- When you post goods issue, the system automatically:
 - Updates the quantities in inventory management and delivery requirements in materials planning
 - Updates the value change in the balance sheet accounts for inventory accounting (the postings from the relevant accounting document are based on the cost of the material)
 - Generates additional documents for accounting, for example, for controlling
 - Adds the delivery to the billing due list
 - Updates the status in all relevant sales documents

Creating a Billing Document

SAP



- You can create an invoice for one delivery or sales order.
- You can group invoices using selection criteria, such as customer, billing date and destination country.
- The SAP System can combine deliveries into a billing document, provided these deliveries share some essential billing characteristics, for example:
 - Payer
 - Billing date
 - Destination country
- The SAP System can create invoices either online or as a background job to be executed during off-peak hours.

Header

Item 1

Item 2

Item 3

Billing doc.

Payer

3761

Item	Material	Invoiced Quantity
------	----------	-------------------

10	1400-100	20 PC
----	----------	-------

20	1400-200	30 PC
----	----------	-------

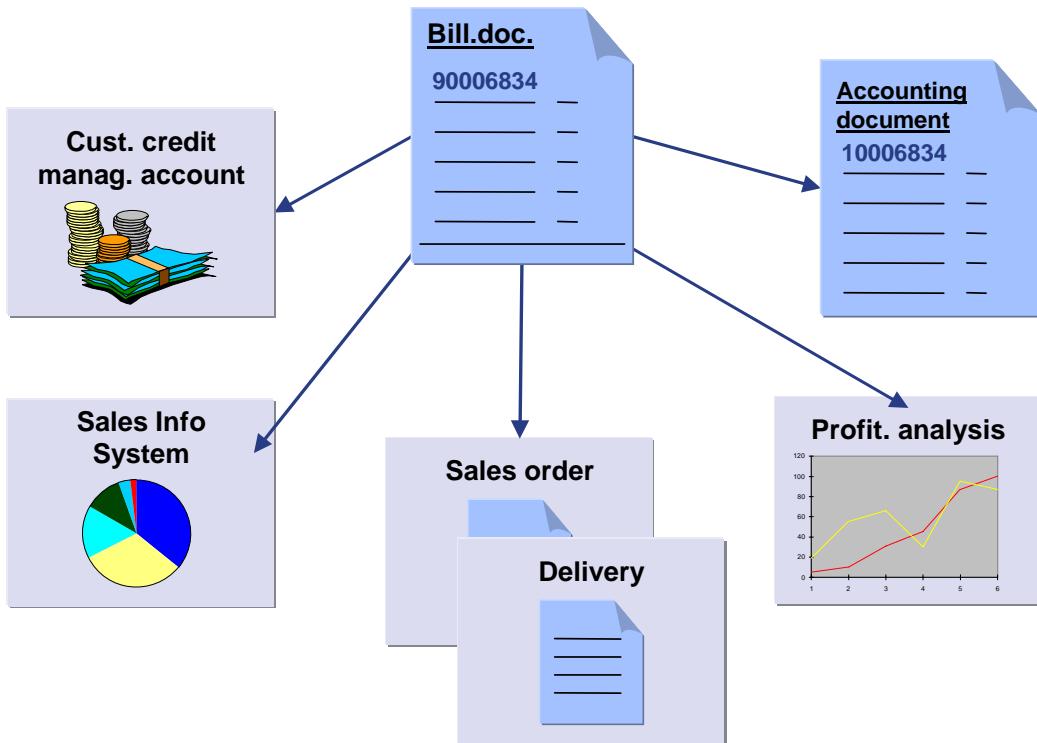
30	1400-300	10 PC
----	----------	-------

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- A Billing document includes two levels: header and item. The data is distributed as follows:
 - Billing document header
The data for the document header is valid for the entire document. This includes, for example, data about the payer and billing date.
 - Billing document items
Each item in the sales document contains its own data. This includes, for example, details about the material, billing quantities and net values for the items. Each billing document can have several items.
- To process billing documents efficiently, the data can be read and processed in different views. The views are grouped into overview, header and item screens.

Effects of Billing Document

SAP

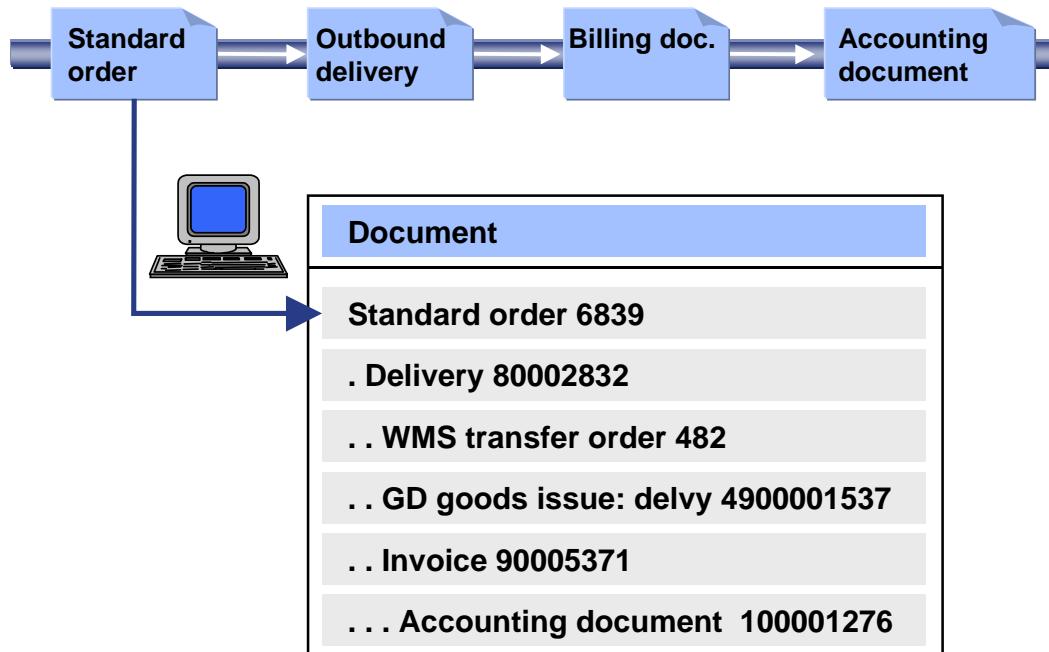


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- When you save the billing document, the system automatically generates all the required documents for accounting. In accounting, the R/3 system carries out a debit posting on the customer receivables account and a credit posting on the revenue account.
- The accounting document contains all the completed postings in financial accounting that refer back to pricing in SD, for example, the receivable on the customer account or the obtained net sales and taxes on the relevant G/L accounts.
- When you save the billing document, further documents for accounting can be automatically generated by the system, for example, for the components Controlling (CO), profitability analysis, market segment analysis (CO-PA) or consolidation (FI-LC).
- When the billing document is posted, the following also occurs:
 - the status in all related sales, delivery and billing documents, is updated
 - the sales statistics in the sales information system are updated
 - the customer credit account is updated

Document Flow in the SAP System

SAP

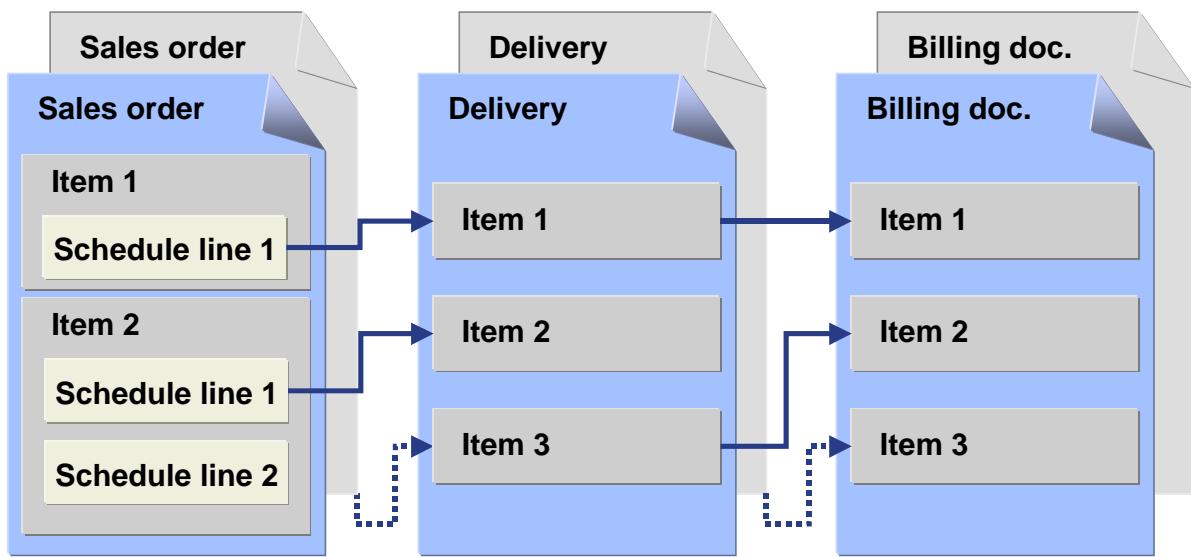


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- The documents in a sales process are linked to each other using the document flow. This enables you to access the history and current status of your sales processes at any time.
- You can display the document flow as a list of linked documents. All preceding and succeeding documents are displayed, depending on the document you call the list from.
- From this list, you can display the relevant documents or call up status overviews for the documents.
- This provides an overview of the development of your sales processes at any time, and you can answer customer questions quickly and reliably.

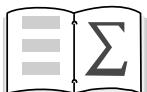
Document Flow at Item Level

SAP



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- The document flow is updated on the document header and document line level.
- Only sales documents contain schedule lines. Since each schedule line contains its own delivery date, each deliverable schedule line becomes an item in a delivery document. Therefore delivery documents and billing documents do not need schedule lines.



You are now able to:

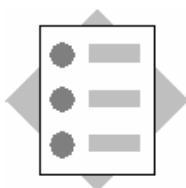
- Explain the process chain for sales order processing
- Create a customer sales order
- Trigger delivery of a sales order
- Pick and post goods issue
- Invoice a customer for the delivery
- Post the payment to the customer's account

Exercises



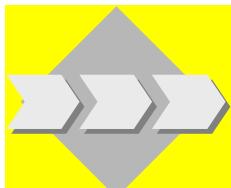
Unit: Overview of Sales Processes

- Pre-Sales Activities
- Sales Order Processing
- Procurement
- Shipping
- Billing
- Payment



At the conclusion of these exercises, you will be able to:

- create a simple sales order
- create an outbound delivery for a sales order
- execute picking and post the goods delivery to an outbound delivery
- create a billing document for outbound delivery
- enter an incoming payment for the customer



As a rule, the sales process begins with the customer ordering materials from you and telling you his requested delivery date. Using this information, you can enter a sales order.

You then trigger the shipping activities at the appropriate time, so that the customer receives the material in time. To be able to pick the material in stock, you generate a picking list. As soon as the material has left the company, you post the goods issue in order to update stocks and values.

You then create a billing document and send the customer the invoice. As soon as the customer has paid for the materials, the incoming payments are posted in Accounting.

1-1 Describe the pre-sales activities.

1-1-1 In what part of the process do the pre-sales activities for back office processing take place?

1-1-2 What tasks occur in the pre-sales activities?

2-1 Enter a sales order.

2-1-1 Create a **standard order** for the following customer purchase order.

Purchase order	
Customer:	T-S50A##
Purchase order number:	4-211
Required delivery date:	10 days after today's date.
Material Quantity	
T-AS1## 10	
T-AS2## 20	



Use the following menu path: *Logistics→Sales and Distribution→Sales→Order →Create*

Save the order and record the document number.

2-2 Display the sales order and familiarize yourself with the screen layout.

2-2-1 Display the previously entered sales order.
Record the payment terms in the sales order.

2-2-2 From which plant is item 10 delivered?



In order to display the plant for item 10, scroll to the right on the *Sales* tab page.

2-2-3 What is the net price for item 10 and item 20?



For example, by scrolling to the right on the *Sales* tab page, you will find the net price for an item.

2-2-4 What is the delivery date in the schedule line for item 10?



In order to display the schedule lines for the item, choose item 10 and then select *Schedule lines for item*.

2-2-5 What is the overall processing status for the sales order?



In order to display the overall processing status, select *Display document flow*.

3-1 Enter the outbound delivery.

3-1-1 Create an outbound delivery for the previous sales order.



Use the menu path *Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order*. To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**.

3-1-2 Switch to the Picking tab page and record the delivery quantity and picking quantity for the two items.

3-1-3 Save the delivery and record the document number.

3-2 Display the document flow for the delivery.

3-2-1 What is the overall processing status for the sales order?



You will find the overall processing status in the sales order document flow. In the transaction *Outbound delivery*→*Display*, select *Document flow*.

3-2-2 What is the overall processing status for the outbound delivery?

4-1 Display the inventory management for materials.

4-1-1 Before the materials leave the plant , and before the goods delivery has been posted, display the stocks for *Material T-AS1##* in *plant 1000*.



Open a new session in order to trace the stocks.

Inventory management is carried out in materials management.

Choose the menu path *Materials management → Inventory management→Environment→Stock→Stock overview*

Record how many units are in stock.

5-1 Pick the outbound delivery.

5-1-1 Create a transfer request as a basis for goods movement in the warehouse and to print the picking list. Enter the transfer request for the outbound delivery from the previous task:

Warehouse number 010

Plant 1000

Structure dark

Transfer picking quantity 1



Use the following menu path:*Logistics → Sales and distribution → Shipping and transportation →Picking → Create transfer order → Single document*

Record the transfer request number.

6-1 Once picking has been carried out, you can post the goods delivery.

6-1-1 Change the outbound delivery. First, record the *picking quantities* that are in both items in the outbound delivery.

6-1-2 Post the goods delivery.



In the transaction *Outbound delivery*

7-1 Display the inventory management for materials.

7-1-1 Before the materials leave the plant , and before the goods delivery has been posted, display the stocks again for *Material T-AS1##* in *plant 1000*.



Change to the second session, and choose *Refresh*. If you have deleted the second session, choose *Materials Management* → *Inventory Management* → *Environment* → *Stock* → *Stock Overview*.

Record how many units are now still in stock.

8-1 Display the document flow for the delivery.

8-1-1 What is the overall processing status for the outbound delivery?



You will find the overall processing status in the sales order document flow. In the transaction *Outbound delivery*→*Display*, select *Document flow*.

8-1-2 What further documents have been entered for outbound delivery?

8-1-3 Why is the status for the outbound delivery still being processed?

8-1-4 Why are the transfer order and goods delivery now completed?

9-1 Enter the billing document.

9-1-1 Enter the billing document for the outbound delivery from the previous task:



Use the following menu path: *Logistics*→*Sales and Distribution*→*Billing*→*Billing document*→*Create*

Save the billing document and record the document number.

9-2 Display the billing document.

9-2-1 Check in the billing document header which company code the data has been posted to in accounting.



The company code is in the billing document header under the accounting data. In the transaction *Billing document*→*Display*, select *Display doc.header details*.

- 9-2-2 Display the accounting document for the billing document and record which accounts have been posted to.



To display the accounting document, select *Billing document*→*Display*, then choose *Accounting Overview*, and select *Accounting document*.

- 9-2-3 Display the document flow for the billing document.

What is the overall processing status for the outbound delivery?

- 9-2-4 What further document has been generated by saving the billing document?

- 9-2-5 What is the overall processing status for the accounting document?

10-1* The customer pays the invoice. Enter the incoming payment from the customer for financial accounting.

10-1-1 Next, display the billing document to check the invoiced amount that the customer has to pay. The customer pays punctually, so that he can justifiably claim the deduction of cash discount. Record the final amount and deduction of cash discount.



Display the billing document. Check the conditions of the pricing in the billing document header.

Select the transaction *Billing document* → *Display*.
Choose *Pricing conditions header*

10-1-2 Enter the incoming payments. The customer pays the final amount of the invoice minus the deduction of cash discount.

The incoming payment is entered with:

Document date: Today's date
Company code: 1000
Posting date: Today's date
Currency: UNI

Bank data:

Account: 100009

Amount: see exercise 10-1-1

Final amount minus cash discount

Open Item selection:

Account: T-S50A##



In financial accounting, an incoming payment is entered with the following transaction: Use the following menu path:

Accounting → *Financial accounting* → *Accounts receivable* → *Document entry* → *Incoming payment*
Once you have followed this path, select *Process open items*.

The invoice can only be completed successfully when the values from both fields on the bottom right match: *Amount entered* and *Assigned*.

If several open items are available, you can deactivate these by double clicking on the amount field.

10-1-3 Finally, display the document flow for the billing document again.

What is the overall processing status for the accounting document?

11-1 Questions about the overview of sales processes. -

11-1-1 Which steps occur in the sales processes?

11-1-2 Which function in the R/3 system can you use to display the overall processing status and history for documents?

11-1-3 What are the three main components of a sales order?

11-1-4 What are the two main components of an outbound delivery and a billing document?

11-1-5 What are the effects of posting a goods issue?

11-1-6 What are the effects of creating a billing document?

Solutions



Unit: Overview of Processes in Sales and Distribution

- Pre-sales activities
- Sales order processing
- Procurement
- Shipping
- Billing
- Payment

1-1-1 Pre-sales activities, such as inquiries and quotations, take place at the start of the sales processes, before the sales orders have been processed.

Customer sales activities, for example visits or telephone calls, can also take place at any time. You can enter them into the system and manage them accordingly.

1-1-2 Pre-sales activities include:

- Updating customer contacts
- Mailing lists
- Customer Inquiry Processing and
- Quotation Processing

2-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

Choose ***Save***.

The document number is assigned by the system.

2-2-1 ***Logistics → Sales and distribution → Sales → Order → Display***

Terms of payment:

ZB01. The payment term is on the *Sales* tab page.

2-2-2 From *plant 1000*

For example, if you scroll to the right, you see the delivering plant for the item on the *Procurement* or the *Sales* tab page.

2-2-3 Net price item 10: **60 UNI** per piece

Net price item 20: **30 UNI** per piece

For example, if you scroll to the right on the *Sales* tab page, you see the net price for an item.

2-2-4 Delivery date: Corresponds to the requested delivery date **in 10 days**.

To display the schedule lines for the item, select item 10 and then choose *Schedule lines for item*.

2-2-5 Overall processing status: **open**

The overall processing status is in the sales order document flow. *Select Display document flow*.

3-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order***

To enter the outbound delivery at an earlier date, set the selection date **20 days** in the future. Use shipping point **Z0##**.

3-1-2 Select the **Picking** tab page.

	<i>Delivery quantity</i>	<i>Picking Quantity</i>
<i>Item 10</i>	10	0
<i>Item 20</i>	20	0

3-1-3 Choose **Save**.

The document number is assigned by the system.

3-2-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Change → Single document***

Select *Display document flow*.

Standard order: Overall processing status: **completed**

3-2-2 Outbound delivery: Overall processing status: **open**

4-1-1 ***Logistics → Materials management → Inventory management → Environment → Stock → Stock overview***

There are **100** units in stock in plant 1000.

- 5-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Picking → Create transfer order → Single document***

The document number is assigned by the system.

- 6-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Change → Single document***

Picking Quantity

Item 10	10
Item 20	20

- 6-1-2 Choose ***Post Goods Issue.***

- 7-1-1 Switch to the second session, and choose *Refresh*.
There are **90** units in stock in plant 1000.

- 8-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Change → Single document***

Choose *Document flow*

Outbound delivery: Overall processing status: **being processed**

- 8-1-2 WM-transfer orders and goods for outbound delivery

- 8-1-3 The subsequent billing document has not yet been entered for outbound delivery. The document retains the status *being processed* until shipping processing is completed with the creation of the billing document.

- 8-1-4 The transfer request and goods delivery are part of the outbound delivery.
Both steps are completed.

9-1-1 ***Logistics → Sales and distribution → Billing → Billing document → Create***

Choose ***Save***.

The document number is assigned by the system.

9-2-1 ***Logistics → Sales and distribution → Billing → Billing document → Display***

Choose ***Display doc. header details***.

Company code 1000

9-2-2 Choose ***Accounting Overview***

Select the ***accounting document***.

The following accounts have been posted to:

The customer account Motomarkt Heidelberg

Domestic Net Sales (per item)

Output tax

9-2-3 ***Logistics → Sales and distribution → Billing → Billing document → Display***

Select ***Display document flow***.

Outbound delivery: Overall processing status: **completed**

9-2-4 The accounting document is automatically generated in the background when the billing document is created.

9-2-5 Accounting document: Overall processing status: **not cleared**

10-1-1 Final amount 1320 (corresponds to the total amount of the invoice)

Cash discount 39,60-

10-1-2 Amount due (final amount – cash discount): $1320 - 39,60 = 1280,40$

Accounting → Financial accounting → Accounts receivable → Document entry → Incoming payment

10-1-3 ***Logistics → Sales and distribution → Billing → Billing document → Display***

Select ***Display document flow***.

Accounting document: Overall processing status: **cleared**

11-1-1 Pre-Sales Activities

- Sales Order Processing
- Procurement
- Shipping
- Billing
- Payment

11-1-2 Choose *Display document flow*.

11-1-3 Order header

- Item
- Schedule line

11-1-4 Header

- Item

11-1-5 Stock quantity is updated

- Values are updated in inventory accounting
- Requirements are updated
- Other accounting documents are generated (for example, for Controlling)
- The billing index is updated (by doing so, the billing document can be generated for outbound delivery)
- Status in all relevant sales documents is updated

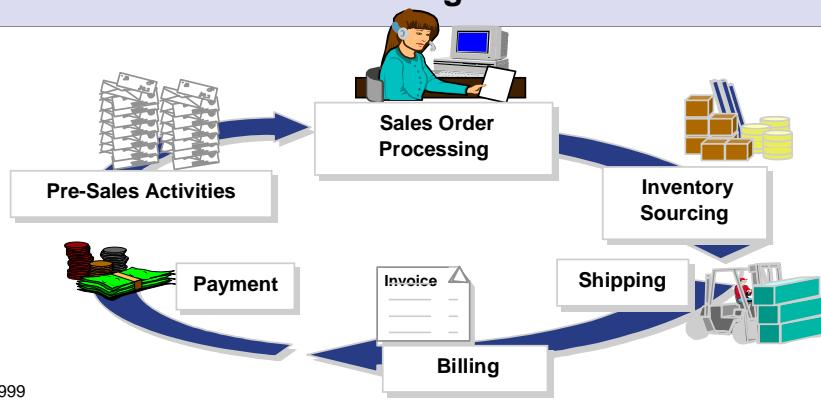
11-1-6 Accounting document is created.

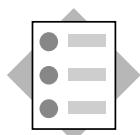
- Additional documents are created for accounting
- Status in all relevant sales documents is updated
- Sales information system is updated
- Customer credit management account is updated

Contents:

- Customer Master Data
- Material Master Data
- Customer- Material Information Record
- Output Master Data
- Incompletion Log
- Condition Master Data in Pricing

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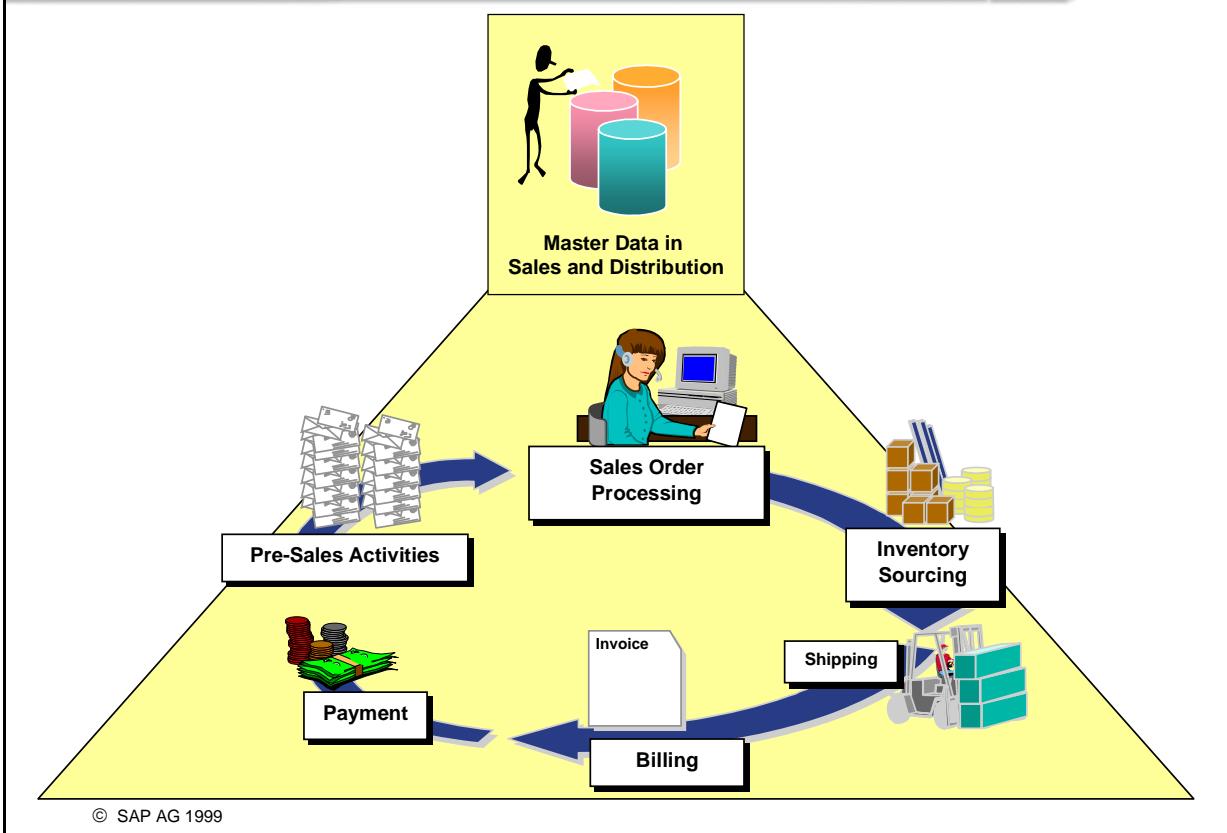


At the conclusion of this unit, you will be able to:

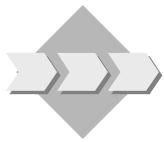
- **Maintain customer master data**
- **Maintain material master data**
- **Maintain customer-material information record**
- **Issue output for sales documents**
- **Work with the incompletion log**
- **Explain the effects of master data on the processes in sales and distribution**
- **Maintain condition master data and explain pricing functions**

Master Data: Overview Diagram

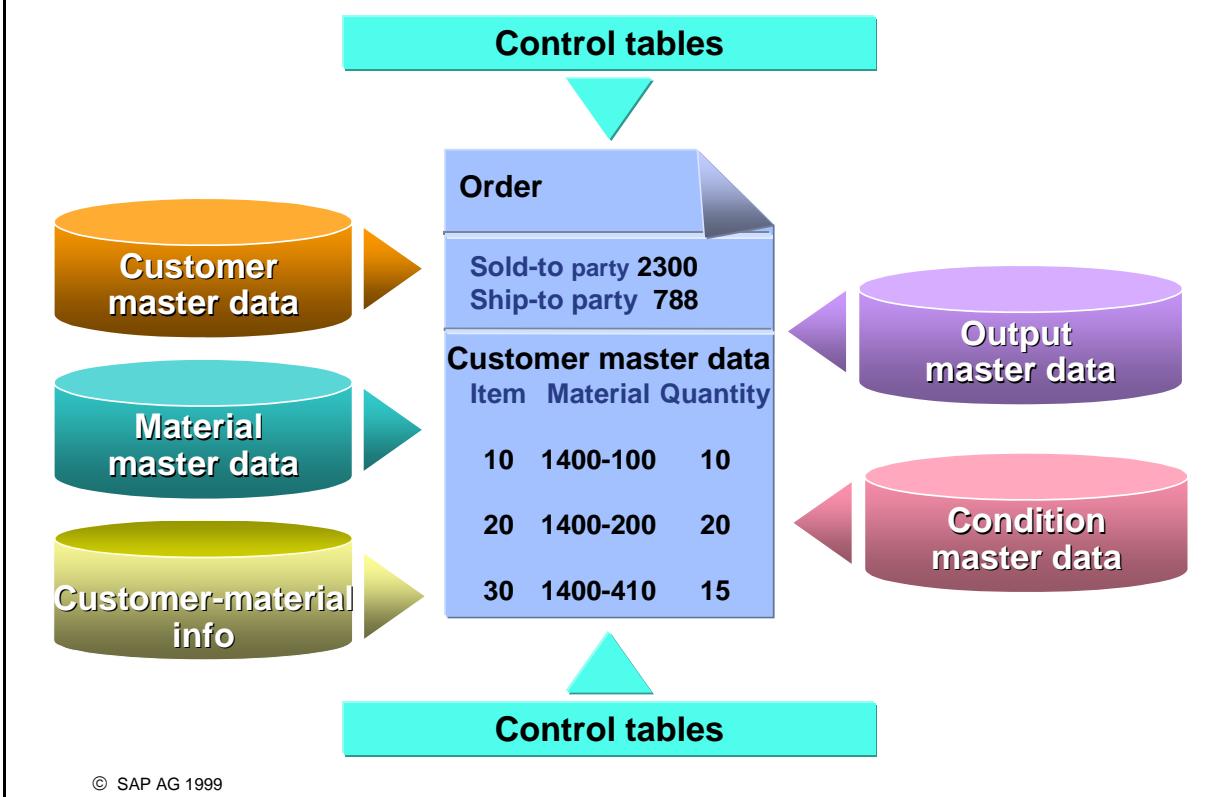
SAP



- Master data is relevant for each process in sales and distribution.



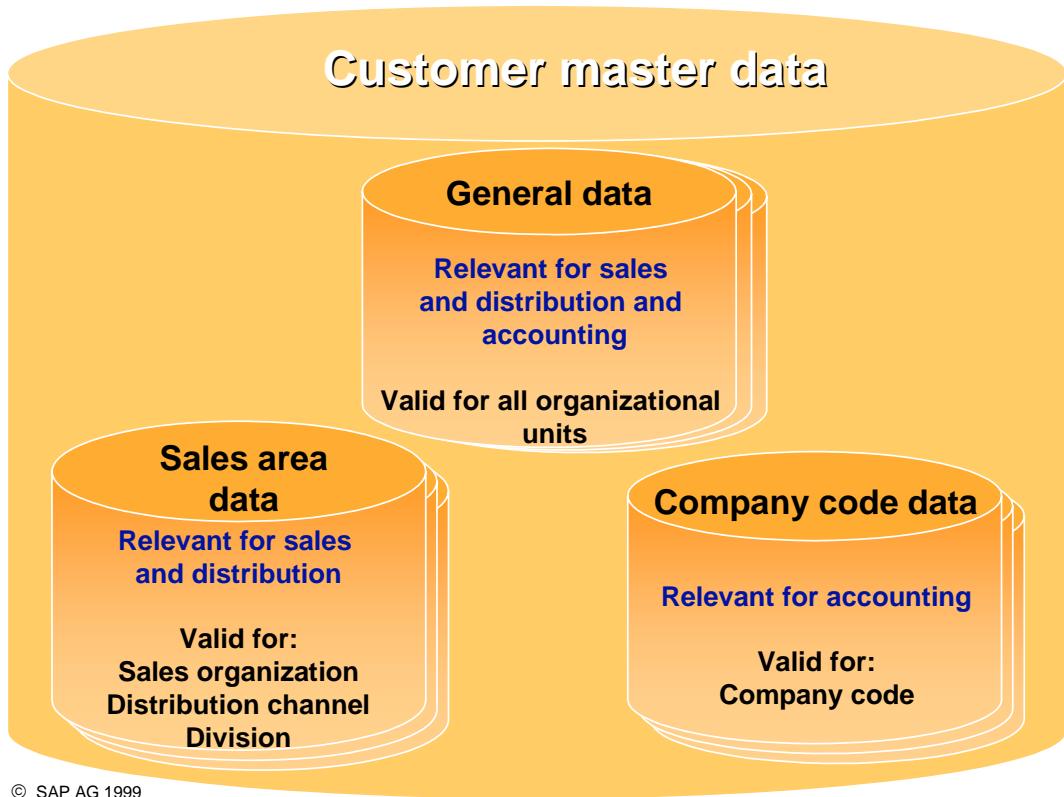
- IDES AG adds new customers to its existing customer base.
- IDES offers a new material that is similar to an existing material.
- IDES requires all master records created to be able to properly reflect this new customer, new material, and the customer's special business requirements.
- You define a price for the new material, which will be valid for all customers.
- For certain major customers, you define special prices and discounts.



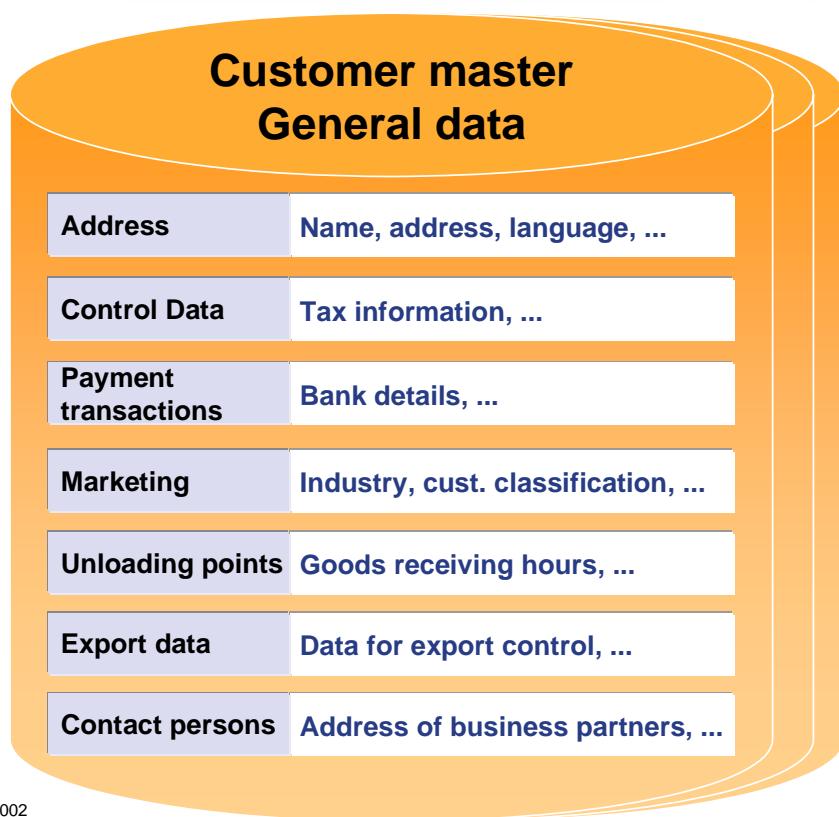
- Several sources of data can be copied into a sales order or into another sales and distribution document. Most of them are default values that you can overwrite in the sales and distribution document, if necessary.

These sources of data include, for example:

- Customer master data
- Material master data
- Condition master data (You create and maintain this master data in the sales and distribution master data for automatic pricing. This could be, for example, a material price or a customer discount).
- Output is information that is sent to the customer using various media, such as mail, EDI, or fax. Examples include the printout of a quotation or an order confirmation, order confirmations using EDI, or invoices by fax.
- Control tables: You can create and maintain these tables in Customizing. The default values of several data can be controlled in the sales and distribution documents, depending on the table settings.
- One sales document can serve as a source of data for another sales document. For example, a quotation can serve as a data source for a sales order.



- The customer master groups data into categories: general data, sales area data, and company code data.
- The general data is relevant for sales and distribution and for accounting. It is stored centrally (client-specific), in order to avoid data redundancy. It is valid for all organizational units within a client.
- The sales area data is relevant for sales and distribution. It is valid for the respective sales area (sales organization, distribution channel, division).
- The company code data is relevant for accounting. It is valid for the respective company code.
- The customer master includes all data necessary for processing orders, deliveries, invoices, and customer payments.



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- In order to maintain the general data in the customer master that is relevant for sales and distribution and accounting, the data fields are grouped on several tab pages.
- The general data is maintained independently of the organizational units.
- The general data in the customer master is on the following tab pages:
 - Address
 - Control data
 - Payment transactions
 - Marketing
 - Unloading points
 - Export data
 - Contact persons
- By changing the Customizing settings, you can hide certain fields on a tab page or make them required entry fields.

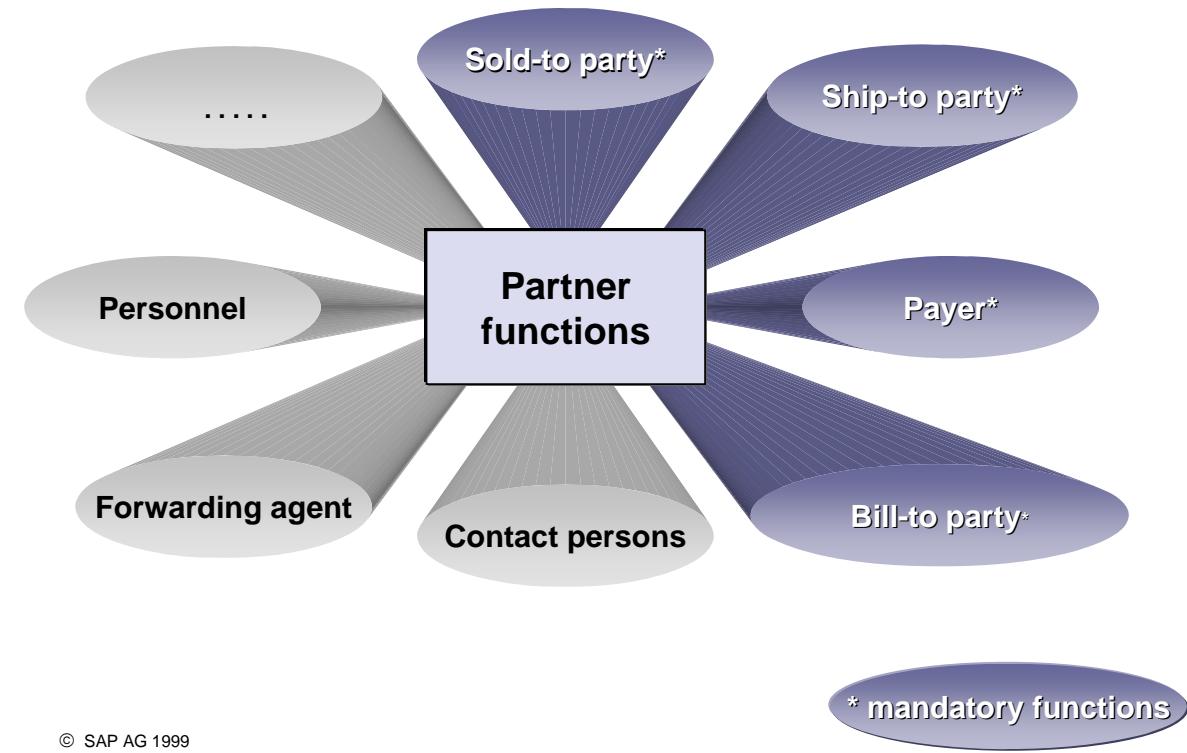


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- You can maintain the sales area data in various ways, depending on the sales area (sales organization, distribution channel, division).
- The sales area data in the customer master is set out on the following tab pages:
 - Orders
 - Shipping
 - Billing document
 - Partner functions
- By changing the Customizing settings, you can hide certain fields on a tab page or make them required entry fields.

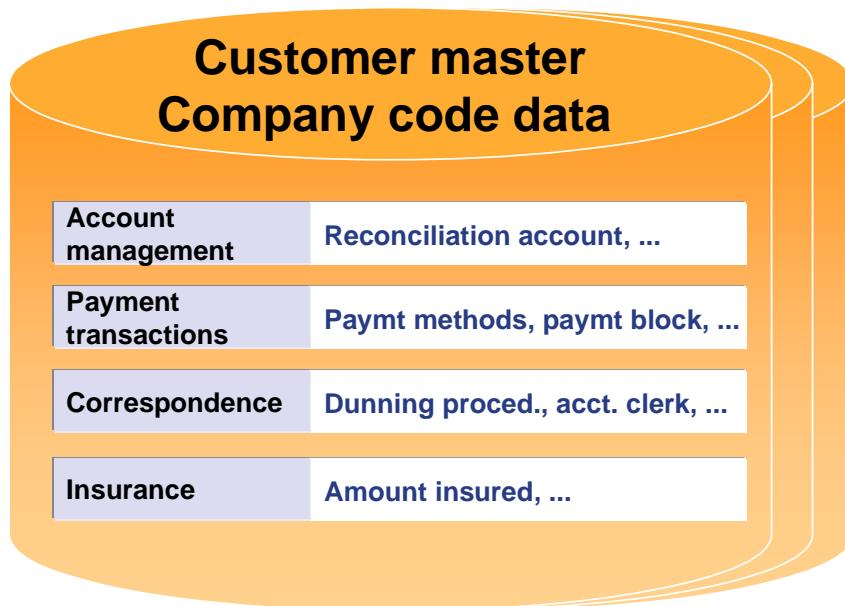
Partner Functions in the Customer Master

SAP



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- You store the partner functions for the customer master in the customer master sales area data (tab page *Partner functions*). When processing a sales order, they are copied as default values into the documents.
- The following obligatory functions are necessary for sales order processing: Sold-to party, ship-to party, bill-to party, and payer. In the course of processing a sales order, they can differ from each other or can be identical.
 - Sold-to party: places the order.
 - Ship-to party: receives goods or services.
 - Bill-to party: receives the invoice for goods or services.
 - Payer: is responsible for paying the invoice.
- Other partner functions, such as contact person or forwarding agent, are not necessary for sales order processing.

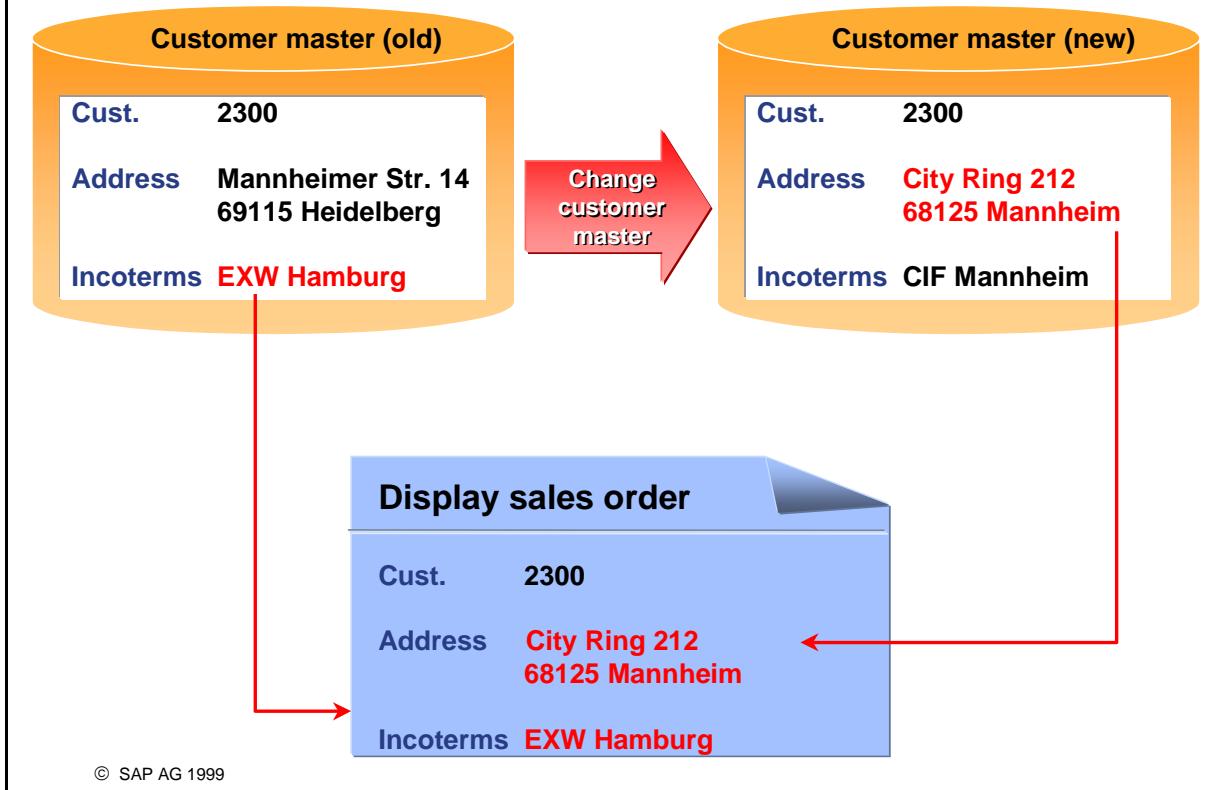


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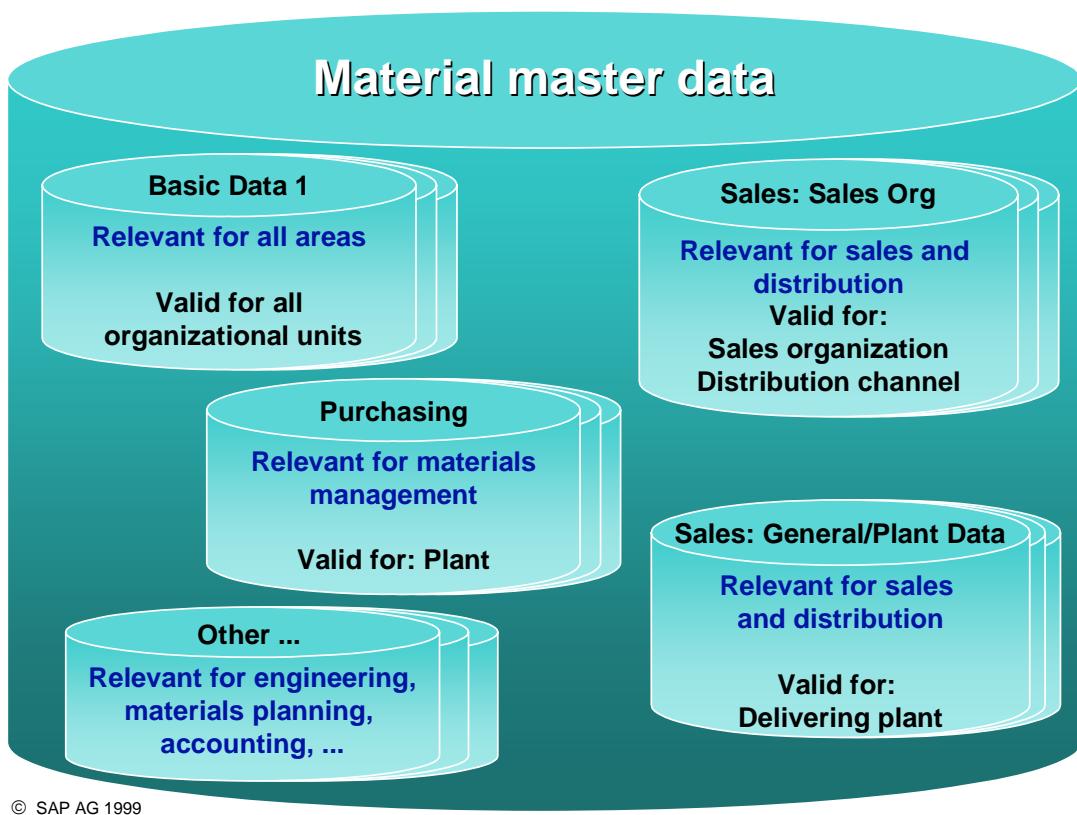
- In order to maintain the company code data relevant for accounting in the customer master, the data fields are grouped on several tab pages.
- You can maintain the company code data in various ways, according to the company code
- The company code data in the customer master comprises the following tab pages:
 - Account management
 - Payment transactions
 - Correspondence
 - Insurance
- By changing the Customizing settings, you can hide certain fields on a tab page or make them required entry fields.

Effects of Changes in the Customer Master

SAP



- When you change a master record after having used it to create documents (orders, deliveries, billing documents, ...), the changes do not affect the documents already created. However, the **address** in the customer master is an **exception**. Therefore, if it was necessary, you would have to change the data in the documents manually, except for the address.

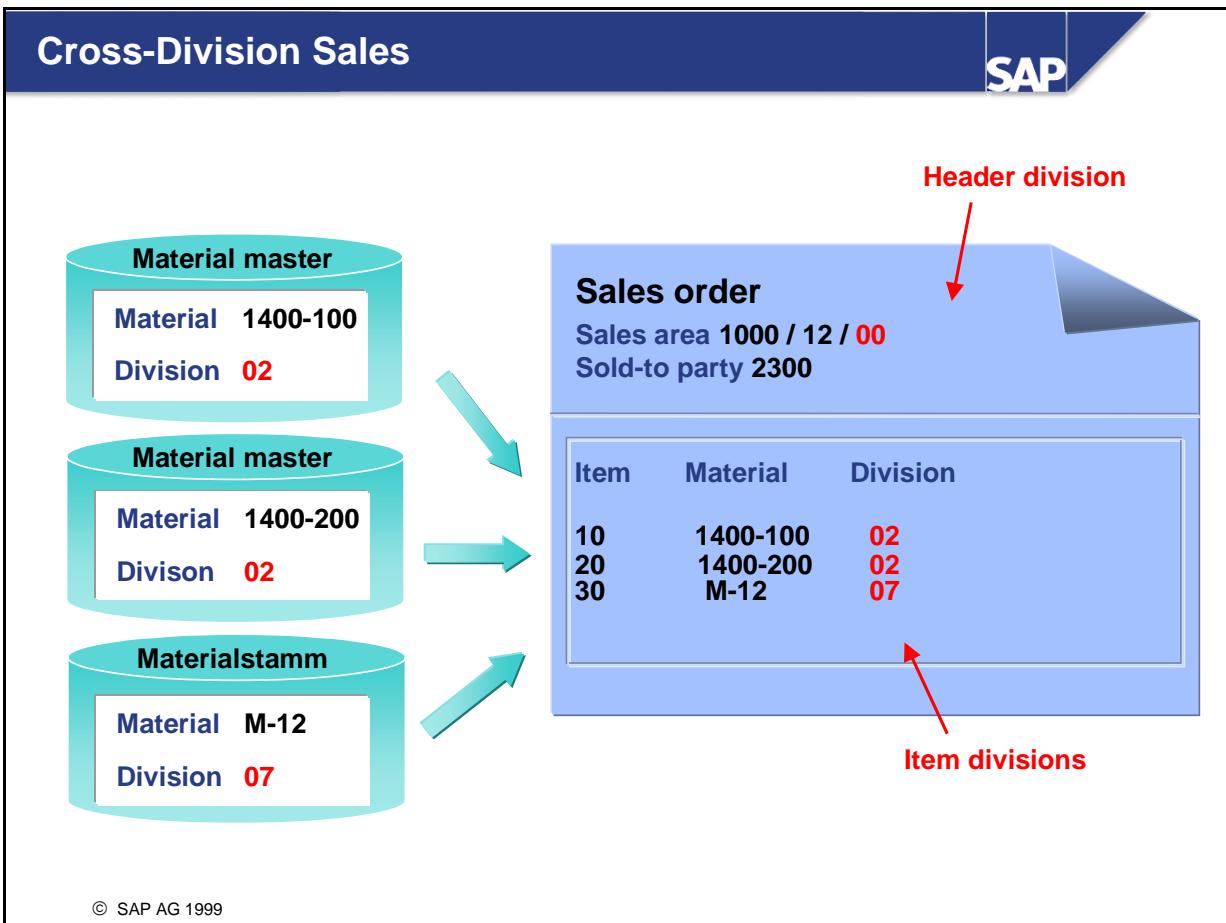


- The material master is grouped into several views: Basic data, sales and distribution data, purchasing data, various further data for engineering/design, accounting, costing, warehouse management, and so on.
- Basic data is relevant for all areas. It is valid for all organizational units within a client.
- Sales: sales organization data is relevant for sales and distribution. It is valid for the respective sales organization and the distribution channel.
- The sales: plant data is also relevant for sales and distribution. It is valid for the respective delivering plant.
- There is additional data for several other areas. This is valid for various organizational units.



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- There are several tab pages in the material master, that are valid for sales and distribution:
 - Basic data is relevant for all areas. It is maintained independently of organizational units.
 - Sales Org. 1 data, Sales Org. 2 data, and the sales texts are valid for the sales organization and the distribution channel.
 - Sales: General/Plant data and Foreign Trade: Export data is valid for the delivering plant.
- By changing the Customizing settings, you can hide certain fields on a tab page or make them required entry fields.

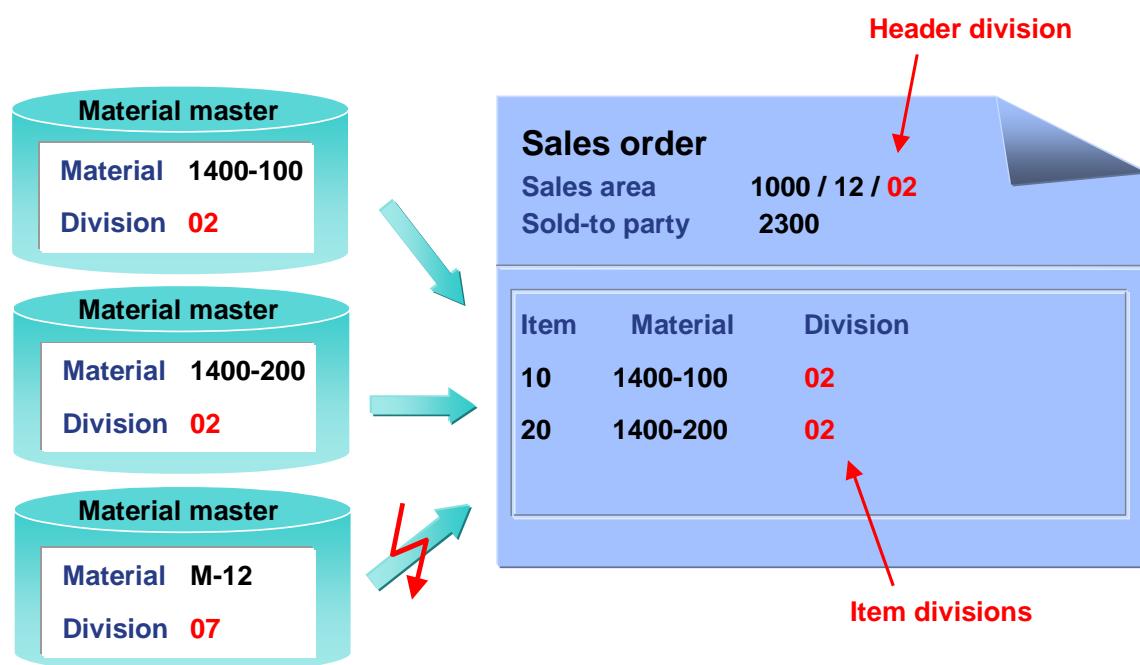


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- You can use this kind of processing to enter multiple materials with various divisions in a sales order.
- You can control the following in Customizing, according to the sales document type:
 - Whether it is possible to enter multiple materials with various divisions for an order.
 - The way the system is to respond (with or without warning message)
 - Whether the division on item level is copied from the material master record or whether the division in the document header is also copied into the item.

Division-Specific Sales

SAP



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- You cannot use this kind of processing to enter multiple materials with various divisions in an order.
- This can be controlled in Customizing, according to the sales document type.

Customer - Material Information Record

SAP

Customer master

Material master

Customer-Material Information

Customer	2300
Sales organization	1000
Distribution channel	12

Material Description

1400-100 Headlight Deluxe
1400-200 Rear Light

Customer-specific data:
Customer-material description

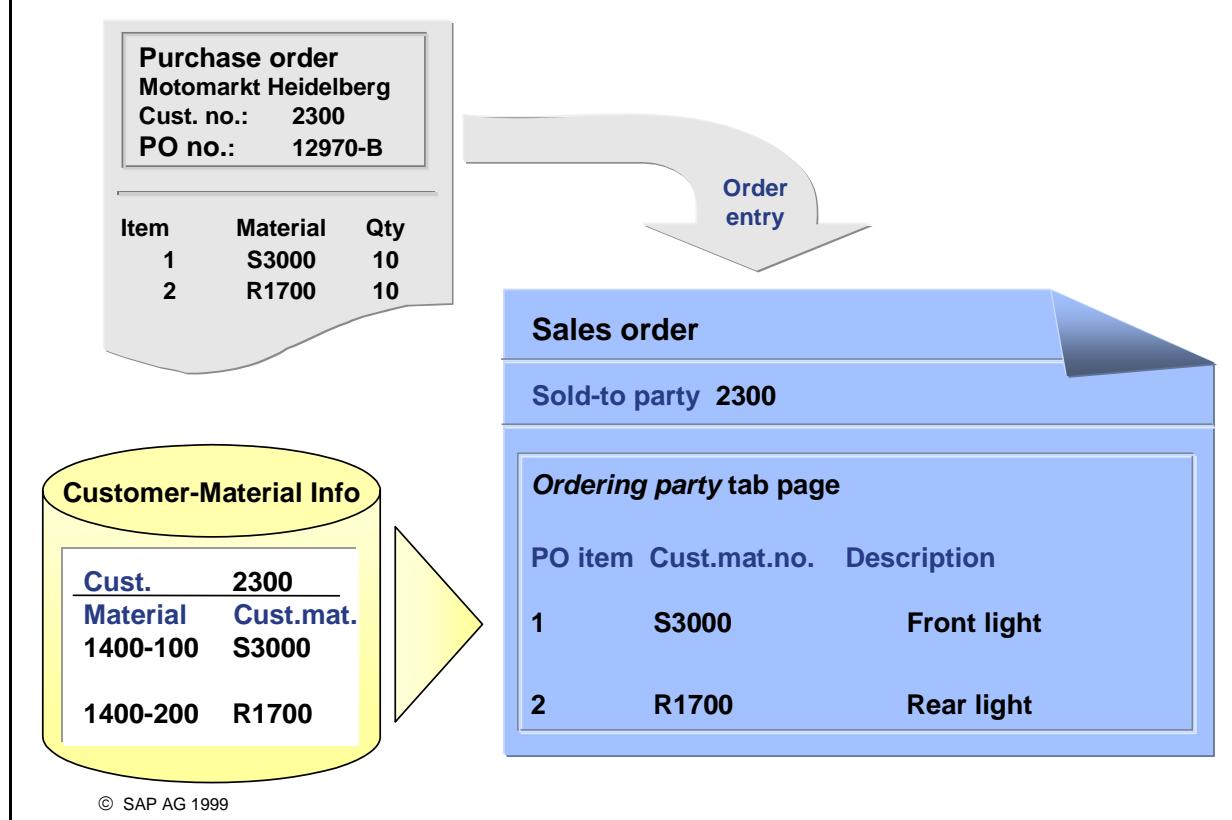
S3000H front light
R1700 rear light + additional data

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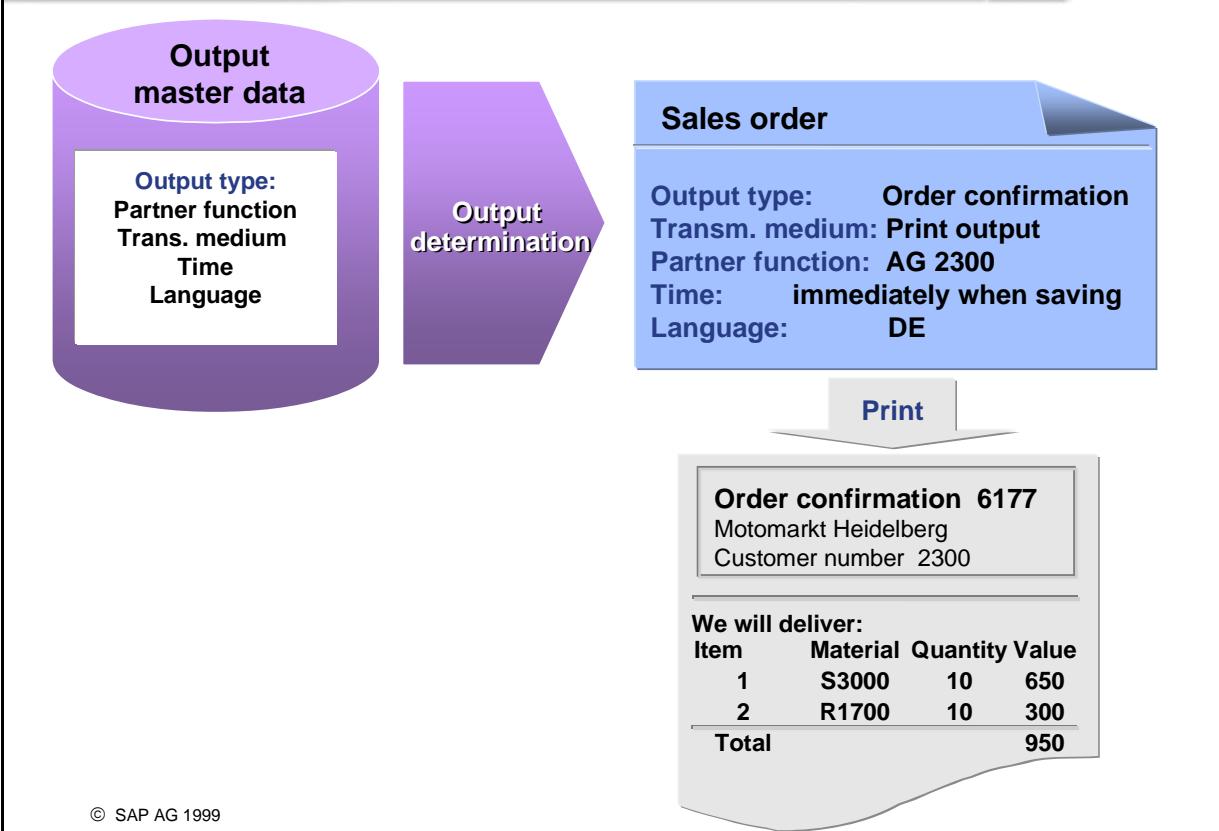
- You can use the customer-material information to record data for a combination of certain customers and materials.
- If a customer-material info exists for a customer and a material, these default values are preferred to the values from the customer or the material master when processing a document (order, or delivery)
- You can use the customer-material information record to maintain the following data:
 - Cross-reference from your customer's material number to your material number and the customer's material description.
 - Specific shipping information for this customer and material (such as delivery tolerances, specifying if the customer accepts partial deliveries, or the default delivering plant).

Order Entry Using Customer-Material Info Record

SAP



- Sales orders can be placed with the customer's material number by using the *Ordering Party* tab page.
- The system finds the associated material master via the customer-material information.



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- Output is information that is sent to the customer using various media, such as mail, EDI, or fax. Examples include: the printout of a quotation or an order confirmation, order confirmations using EDI, or invoices by fax.
- As with pricing, output determination takes place using the condition technique.
- Output can be sent for various sales and distribution documents (order, delivery, billing document)
- In the output master data, you define the transmission medium, the time, and the partner function for an output type.
- Output types include, for example: quotation, order confirmation, invoice.
- Partner functions include, for example: sold-to party, ship-to party, and bill-to party.
- Transmission media include, for example: printer, telex, fax, mail, EDI.
- Times at which output is sent include: immediately when saving, or by using a standard program (RSNAST00) that is run regularly.
- The layout of an output is defined by a form in SAPscript. The form is assigned to an output type.

Sales order

Sold-to party 2300

Purchase order no.

Terms of payment

Item	Material	Qty	Weight
10	1400-100	10	
20	1400-200	10	12 KG

W: Please enter purchase order number

Incompletion log

Item Missing data

PO number

Terms of payment

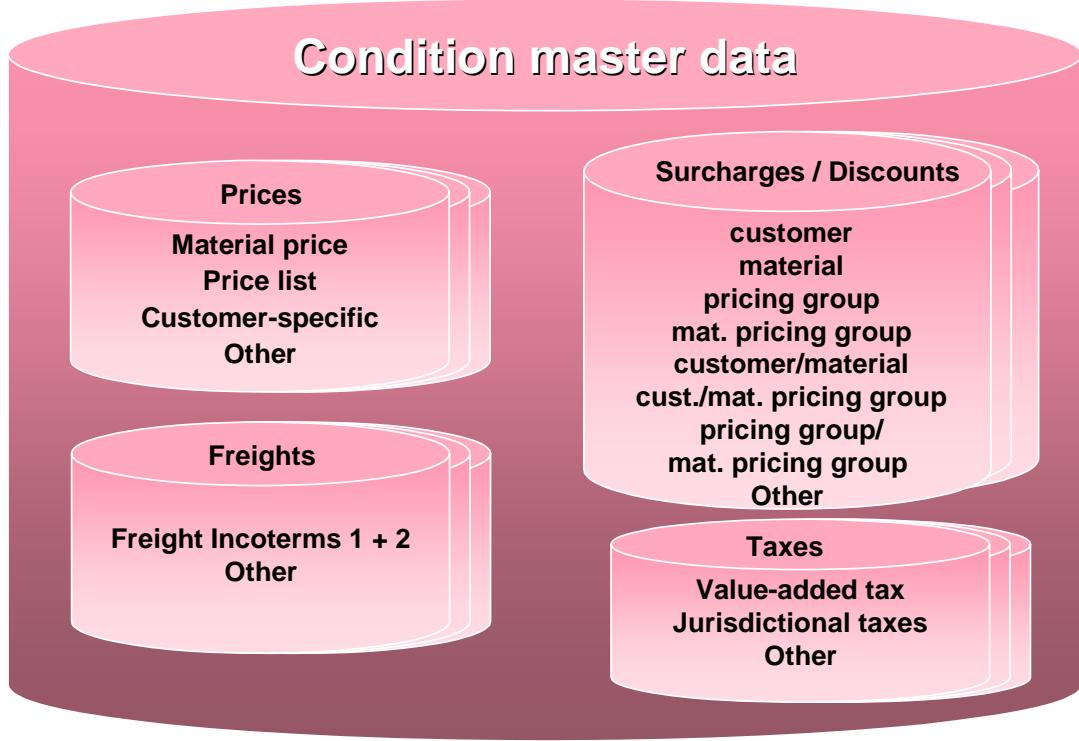
Weight

Call:

- automatically when saving
- via menu bar

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- Each sales and distribution document contains data required for the document and for further processing.
- The system determines which fields are displayed in the incompletion log when the user does not fill them during sales order processing.
- The incompletion log will be displayed a) automatically when you save your entries. You can also call it by choosing *Edit -> Incompletion log*.
- In Customizing, you can decide which fields should be part of the incompletion log.
- The incompletion log functions are available in the sales order and in the delivery.



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- The condition master data includes prices, surcharges and discounts, freights, and taxes.
- You can define condition master data (condition records) to be dependent on various data. You can, for example, maintain a material price customer-specifically or define a discount to be dependent on the customer and the material pricing group.
- In Customizing, you can control the data on which prices, surcharges and discounts, freights or taxes can be dependent. (You can define conditions to be dependent on any document fields). Frequently occurring cases have already been set in the standard system.

Condition master record

Condition type KA00 Sales promotion

Sales organization 1000

Distribution channel 12

Customer 2300

Material 1400-100

Validity

March 01 - April 01

Validity

April 02 - June 01

from 1000 UNI 1- %

from 1000 UNI 1- %

from 2000 UNI 2- %

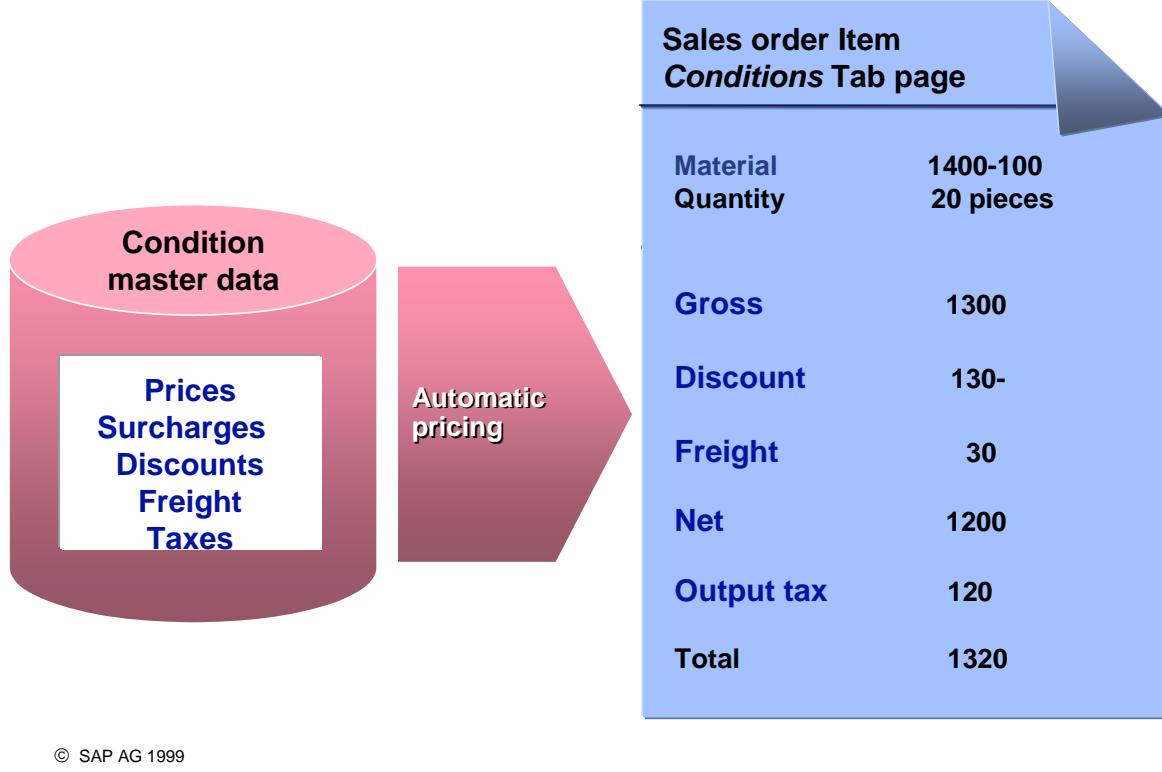
from 2000 UNI 2- %

from 3000 UNI 3- %

from 3000 UNI 3- %

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- The condition type defines multiple uses of a condition.
- You can have a percentage, a quantity-dependent, or an amount-dependent surcharge or discount, depending on the condition type .
- By specifying a validity period, you can restrict a price agreement to a certain period.
- You can maintain values within a condition record (price, surcharge, discount) according to a scale. There is no limit to the number of scale levels.

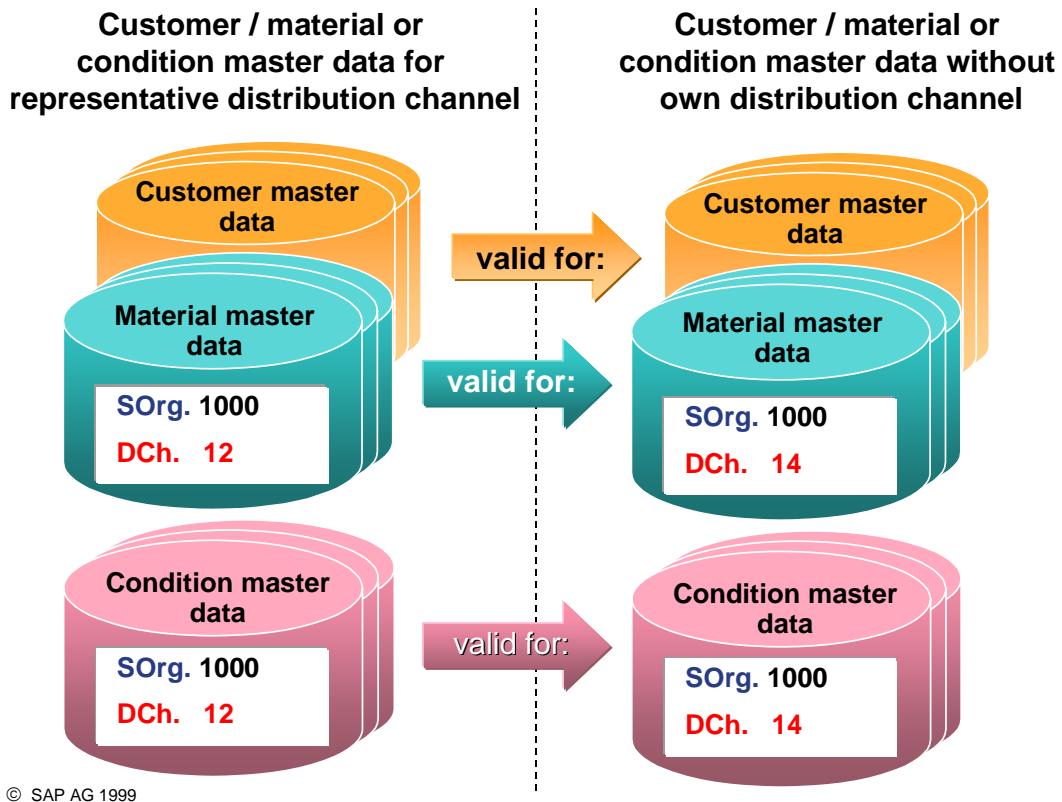


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- You can view prices, surcharges, discounts, freight, and taxes (conditions) for a business transaction using the automatic pricing function. You can also change these conditions manually.
- Pricing is performed using the condition technique.

Common Master Data - Distribution Channels

SAP



- If you do not need the master data (customer / material and condition master data) to be differentiated according to distribution channels, you have to set up a representative distribution channel. The master data for the representative distribution channel applies to all distribution channels for which you have set up this reference in Customizing.
- By doing this, you can minimize the effort of entering and maintaining master data.
- In addition, you can update statistics for distribution channels without having to create master data for the various distribution channels.

Common Master Data - Divisions

SAP

Customer or condition master data for representative division



Customer or condition master data without representative division



valid for:

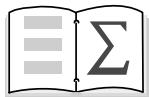


valid for:



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- If you do not need the master data (customer or condition master data) to be differentiated according to divisions, you have to set up a representative division. The master data in the representative division applies to all divisions for which you have set up this reference in Customizing.
- By doing this, you can minimize the effort of entering and maintaining master data.
- In addition, you can update statistics for divisions without having to create master data for the various divisions.



You are now able to:

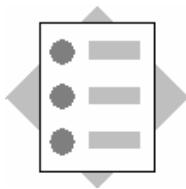
- **Maintain customer master data**
- **Maintain material master data**
- **Maintain customer-material information**
- **Issue output for sales documents**
- **Work with the incompletion log**
- **Explain the effects of master data on the processes in sales and distribution**
- **Maintain condition master data and explain pricing functions**

Exercises



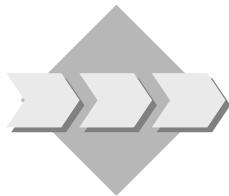
Unit: Master Data in Sales and Distribution

- **Customer master**
- **Output**



At the conclusion of these exercises, you will be able to:

- Maintain a customer master record
- Understand the effect of customer master data on document processing in sales and distribution
- Issue output for sales and distribution documents on the screen
-



A new customer wants to place an order. The customer intends to order goods more often from you in the future. Therefore, you create a master record for the customer. The customer informs you that they would like to have the goods delivered to various addresses. At a later point, the customer informs you of an address change. You therefore change the customer master. After processing the order for the new customer, you want to have a look at the layout of the order confirmation before printing it out and sending it to the customer.

1-1 Create a customer master record for the new customer.

1-1-1 You create the customer master with the number **234##** for sales area **1000, 12, 00** and for company code **1000**.



As you already have the relevant sales and accounting data, you enter the customer master for the sold-to party using the menu path *Logistics → Sales and distribution → Master data → Business partners → Customer → Create → Full*.

Enter only the data specified below.

During a telephone call with the customer, you note down the following information.

N O T E:

Account group: **Sold-to party** (use the first entry for the sold-to party in the search help table)

Customer: **234##**

Address data:

Name: **Miller**

Search term: **LO150**

Street: **Venusstr. 12**

Postal Code: **20111**

City: **Hamburg**

Country: **Germany**

Transportation zone: **Region north**

Language: **Language of the course**

Control data:

VAT registration number: **DE##1234567**

Company code data:

Reconciliation account: **140000**

Sales area data:

Orders:

Customer group: **Trading companies**

Shipping:

Shipping conditions: **## Standard** (corresponds to group number + 50)

Delivering plant: **1000 Hamburg**

Billing document:

Incoterms: **CFR Hamburg**

Terms of payment: **Payable immediately due net**

Tax classification: **Liable for tax**

Save the customer master record.

2-1 Display the previously entered customer master.

- 2-1-1 You are not sure whether you have used the Incoterms fields correctly. How can you get information in the system to make sure that you have used them correctly?



Display the customer master. Use the field help with F1 for the two fields on Incoterms. The fields can be found in the sales area data on the *Billing document* tab page.

-
- 2-1-2 In the customer master record, you have maintained a language for communication with your customer. Does this mean that the order confirmation for this customer will be printed using this language?



On the *Address* tab page in the General data, use the field help (F1) in the language field.

-
- 2-1-3 In the sales area data, check which customer is the bill-to party on the *Partner functions* tab page.

3-1 Change the customer master record.

-
- 3-1-1 The customer informs you of another ship-to party to which the goods are to be delivered frequently besides the sold-to party. In order to facilitate order processing, you store the additional ship-to party in the customer master of the sold-to party. A customer master record has already been created for the ship-to party (**T-S50B##**).

Change the customer master record of the sold-party from the previous exercise. In the sales area data, create the additional ship-to party on the *Partner functions* tab page using number **T-S50B##**.

4-1 The new customer is placing an order for the first time.

4-1-1 Create a **standard order** for the new customer based on the purchase order. Use the F4 search help to find the sold-to party.

<u>Purchase order</u>		
Customer:	Search term:	LO150
Ship-to party:	T-S50B##	
Purchase order number:	5-411	
Required delivery date:	10 days after today's date.	
<u>Material</u>	<u>Quantity</u>	
T-AS2## 2		

4-1-2 In the sales order, the system proposes the Incoterms as they are maintained in the customer master record. However, for this order, the Incoterms **FOB Hamburg** should be valid. Change these entries in the order.



In the sales order, the Incoterms can be found in the order header on the *Sales* tab page.

Does the change affect the customer master record?

4-1-3 Save the order and note down the order number.

5-1 Change the customer master record of the sold-to party.

5-1-1 The customer informs you of an address change. Enter the new street, **Enjoystr. 99.**

- 5-1-2 You have agreed on the new terms of payment **ZB02** with the customer.
Change these entries in the customer master as well.



In the customer master, the terms of payment can be found in the sales area data on the *Billing document* tab page.

-
- 6-1 Display the previously entered sales order (from task 4-1-1).

- 6-1-1 Check the address of the sold-to party in the sales order. Did it change after you changed the customer master?
-

- 6-1-2 Check the terms of payment in the sales order. Did it change after you changed the customer master?
-

- 7-1 Display the order confirmation on the screen.

- 7-1-1 Before printing and sending the order confirmation, you would like to check the layout of the order confirmation.



Display the sales order and choose *Header output view*.

8-1 Enter the outbound delivery.

8-1-1 The sales order should already be delivered. Create an outbound delivery for the previous standard order (from task 4-1-1).

Check the address of the ship-to party in the outbound delivery. Note down the customer number of the ship-to party.



Use the menu path *Logistics* → *Sales and distribution* → *Shipping and transportation* → *Outbound Delivery* → *Create* → *Single Document* → *With Reference to Sales Order*. To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**.

*9-1 Display the previously entered customer master record for customer Miller.

9-1-1 How can you check in the system for which sales areas the customer record has been maintained?

9-1-2 How can you check in the system when and by whom the customer master was created?

9-1-3 How can you check in the system how, when, and by whom which fields in the customer master were changed?

9-1-4 How can you display a list of orders for the customer from the customer master?

10-1 Questions on the Customer Master.

10-1-1 You have created the new customer master record for sales organization 1000, distribution channel 12, and division 00 only. Sales organization 1020 may possibly want to sell goods to the customer as well. What would you need to do to make it possible for sales organization 1020 to enter sales orders for this customer?

10-1-2 Sales organization 1020 also processes orders with the new customer. Sales organization 1020 has agreed to other Incoterms with the customer than sales organization 1000. Is it possible to maintain these different Incoterms for different sales organizations in the customer master record?

10-1-3 Is it possible in the customer master record to maintain various addresses for the sold-to party in multiple company codes?

Exercises



Unit: Master Data in Sales and Distribution

- **Material master**
- **Customer-material info**
- **Incompletion**

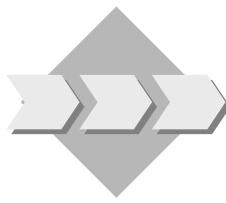
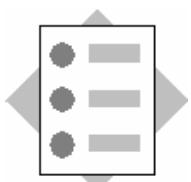
At the conclusion of these exercises, you will be able to:

- Maintain a customer master record
- Maintain customer-material information
- Understand the effects of material master data and customer-material info on the processing of documents in sales and distribution
- Work with the incompleteness log when entering sales orders.
-

You have added a new material to your product range. You wish to post the goods issues into the stock for this material, and create sales orders.

Some major customers usually order materials using their own material numbers. In order to facilitate sales order processing, you use the customer-material information.

You must have weight data available for shipping processing. One reason for this is that your packing materials are only allowed to contain material up to a certain weight. Work with the incompleteness log in order to be sure that weight data is available after sales order processing.



11-1 Create a material master record for the new material.

11-1-1 The new material is a headlight, similar to the existing material T-AS1##. In order to facilitate the entry of the material master record, you can use reference data.

You enter the material master for plant **1000**, sales organization **1000**, and distribution channel **12**.



As the material belongs to the trading goods category which is purchased by the vendor and resold to the customer, you have to maintain the material master using the menu path *Logistics → Sales and distribution → Master data → Products → Material → Trading goods → Create*.

You have the following information on the new headlight:

(Apart from this information, the material has the same features as the system proposed for the reference material T-AS1##.)

Industry: **Retail**

Reference material: **T-AS1##**



Using the available information, first maintain the *Basic Data 1, Sales: Sales Org. Data 1, Sales: General/Plant Data, Sales Text and Accounting 1*.

Material description: **Headlight "Simple"**

Weight: **not yet known**



The gross and net weight of the new material are not yet known. As you create the material master record with reference to material T-AS1##, the system proposes the weight. Do not forget to delete these proposals on the *Basic Data 1* tab page. Maintain the weight entries for the material later, once you have access to them.

Tax classification: **full tax**

Minimum order quantity: **10**

Minimum delivery quantity: **5**

Price: **from 1 piece: 20 UNI per piece**



You can maintain the material price directly when creating the material master record by choosing *Conditions* on the *Sales: Sales Org. 1* tab page

Loading group: **Crane**

Sales text “**Material is fragile!**”

Accounting data:

Price control: **V**

Moving average price: **10**

Save the material master record and note down the number.

12-1 Enter the goods receipt.

12-1-1 You are informed that for the new headlight **200 pieces** have already been delivered. Enter the goods receipt.



Inventory management is carried out in materials management.
Choose the menu path *Materials management* → *Inventory management* → *Goods movement* → *Goods receipt* → *Other*.

Enter the goods receipt using movement type **561** in plant **1000**, storage location **0001**.

Save the goods receipt. Document number: _____

13-1 You receive the first sales order for the new material.

13-1-1 Create a **standard order** based on the purchase order.

Purchase order	
Customer:	T-S50A##
Purchase order number:	5-1311
Required delivery date:	10 days after today's date.
Material Quantity	
Headlight Simple	10
(from the previous exercise)	

13-1-2 Save the order and note down the order number.



Save the order although it is not yet complete. The weight for the material is still missing. You have to complete it once you have the data.

14-1 Enter the outbound delivery.

14-1-1 The sales order should already be delivered. Create an outbound delivery for the previous standard order.



Use the menu path *Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order*. To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**.

Why is it not possible to create the outbound delivery?

15-1 Change material master record.

15-1-1 In the meantime, you have received the details on the weight of the new headlight. Change the material master record and enter the weight.

Gross weight: **1 KG**

Net weight: **1 KG**



You can enter the weight on the *Basic Data 1* tab page.

16-1 Change the incomplete order.

16-1-1 Were there any changes in the previously entered sales order containing the new headlight after you changed the weight in the material master record?

16-1-2 You need to enter the weight in the incomplete order in order to carry out the shipping activities afterwards. Change the incomplete standard order and enter the weight for the item containing the headlight.

Gross weight: **10 KG**

Net weight: **10 KG**



You can find the fields for the gross and the net weight in the item detail on the *Shipping* tab page.

17-1 Try to create the outbound delivery again .

17-1-1 The sales order should already be delivered. Create an outbound delivery for the previous standard order.



To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**.

17-1-2 Check whether the material sales text, which is maintained in the material master record, also appears in the delivery item.



You can find the texts for the delivery item in the item detail on the *Texts* tab page.

*18-1 Create a customer-material info record.

18-1-1 One of your major customers orders materials using their own material numbers. In order to facilitate order entry, you create a customer-material info for sales organization **1000** and distribution channel **12**.

For the new material (headlight "Simple"), the customer **T-S50A##** uses customer material number **K-4711-##** and the description **Headlight 4711**.

A minimum delivery quantity of **10 pieces** was also agreed on with this customer for this material.



You can find the transaction for creating a customer-material info by choosing *Agreements* from the *Master Data* menu.

*19-1 Create a sales order using a customer material number.

19-1-1 Create a **standard order** based on the purchase order.

<u>Purchase order</u>		
Customer:	T-S50A##	
Purchase order number:	5-1911	
Required delivery date:	10 days after today's date.	
<u>Item</u>	<u>Our material number</u>	<u>Quantity</u>
1	K-4711-##	10



In order to enter an item using the customer material number, you have to go to the *Ordering party* tab page.

19-1-2 Save the order and note down the order number.

*20-1 Enter the outbound delivery.

20-1-1 The sales order should already be delivered. Create an outbound delivery for the previous standard order.



To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**.

Save the outbound delivery and note down the order number.

20-1-2 To check how the customer material number will be printed on the delivery note, you display the delivery note on the screen.



To display the delivery note on the screen, you use the menu path *Outbound delivery* → *Display* → *Outbound delivery* → *Issue delivery output*. Choose *Print preview*.

21-1 Questions on the material master.

21-1-1 You want to sell your materials via several sales organizations. Is it possible to maintain multiple sales units in the material master according to the sales organization and the distribution channel?

21-1-2 You want to deliver your materials from various plants. Is it possible to maintain multiple loading groups in the material master according to the plant?

21-1-3 Is it possible to maintain multiple minimum order quantities in the material master according to the division?

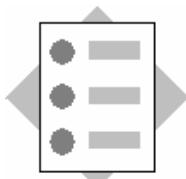
21-1-4 You enter your sales orders with the header division 00. You know that this division is set for cross-division sales in Customizing. Would it be possible to enter several items in a sales order with multiple materials that belong to various divisions?

Exercises



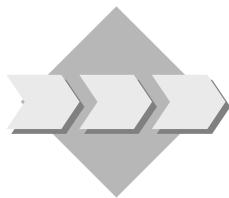
Unit: Master Data in Sales and Distribution

- Condition Master Data in Pricing



At the conclusion of these exercises, you will be able to:

- Maintain condition master data
- Describe the pricing in a sales order
-



You have defined certain price agreements for some major customers. As these customers place orders frequently, they should have lower prices for some materials, depending on the quantity ordered. In addition, a customer should be granted a percentage discount, depending on the order value.

As it is not necessary to enter these agreements each time you create an order, you want to use the automatic pricing function of the R/3 system and create the appropriate condition master data.

22-1 Create a condition master record for prices.

22-1-1 You have agreed with your customer **T-S50A##** that **from now on**, they are to receive the material **T-AS1##** at a quantity-dependent lower price.

from 1 piece: 29 UNI per 1 PC

from 10 pieces: 28 UNI per 1 PC

from 100 pieces: 27 UNI per 1 PC

These agreements should be valid until the **end of the year**. Enter the condition master record for the customer-specific price for sales organization **1000** and distribution channel **12**.



As it is a customer-specific price, you create the condition master record using the following menu path:

Master data → Conditions → Selection by condition type → Create Condition type PR00.

Key combination: Customer/Material with release status

Choose Scales.

- 23-1 After saving the price agreement with the major customer in the system, you receive another order.

23-1-1 Create a **standard order** based on the purchase order.

Purchase order	
Customer:	T-S50A##
Purchase order number:	5-2311
Required delivery date:	10 days after today's date.
<u>Material Quantity</u>	
T-AS1## 20	

- 23-1-2 During order entry, you want to make sure that the automatic pricing function has determined the correct prices.



In order to trace the pricing in the sales order, choose *Item conditions*.

Which price per piece was determined by the system?

- 23-1-3 Save the order and note down the order number.
-

24-1 Create a condition master record for discounts.

24-1-1 You have agreed with your customer **T-S50A##** that **from now on**, they are to be granted a percentage discount for all materials, depending on the item value.

from 100 UNI: **-1%**
from 500 UNI: **-2%**
from 1000 UNI: **-3%**

These agreements should be valid until the **end of the year**. Enter the condition master record for the customer-specific discount for sales organization **1000**, distribution channel **12**, and division **00**.



As this is a customer-specific percentage discount you create the condition master record using the following menu path: *Master data → Conditions → Selection by condition type → Create*
Condition type **K007**

25-1 After storing the price agreement for the discount for the major customer in the system, you receive another order.

25-1-1 Create a **standard order** based on the purchase order.

Purchase order	
Customer:	T-S50A##
Purchase order number:	5-2511
Required delivery date:	10 days after today's date.
Material Quantity	
T-AS1## 10	

25-1-2 During order entry, you want to make sure that the automatic pricing function has determined the correct prices and discounts.



To track the pricing in the sales order, you have to branch to the *Conditions* tab page for the *item detail*.

Which customer discount was determined by the system?

25-1-3 Save the order and note down the order number.

26-1 Questions on condition master data in pricing.

26-1-1 Which condition master data categories (4) can be used in pricing?

26-1-2 You want to sell your materials via multiple distribution channels. Is it possible to maintain the prices in the condition master in different ways according to the distribution channel?

26-1-3 You have entered a sales order. By doing so, prices were created by the automatic pricing. Can you change the prices manually when entering the order?

26-1-4 During sales order processing, you use various divisions. However, you always want to use the same condition master data for all divisions. In order to avoid unnecessary maintenance of condition master data for multiple divisions, you would like to configure the system in such a way, that the condition master data of division 00 are also valid for division 01. Is it possible to make these settings in the R/3 system?

26-1-5 Is it possible to make these settings for common master data for customer and material master data as well?

Solutions



Unit: Master Data in Sales and Distribution

- Customer master
- Output

1-1-1 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Create → Complete***

2-1-1 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Sales and Distribution → Sales area data: document tab page.***

Incoterms (part 1) define rules for shipping. Incoterms (part 2) contain additional information on the primary Incoterms.

2-1-2 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Sales and Distribution → General data: Address tab page***

Yes. The language key designates, for example, the language that you use to print documents.

2-1-3 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Sales and Distribution → Sales area data: Partner functions tab page***

You may store additional possible bill-to parties in the customer master, if necessary.

3-1-1 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Full Partner functions tab page***

4-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

4-1-2 No. The data is proposed from the customer master in the order and can be overwritten, if necessary.

4-1-3 Choose **Save**. The system assigns the order document number.

5-1-1 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Change → Sales and distribution → General data: Address tab page***

5-1-2 ***Logistics → Sales and distribution → Master data → Business partners → Customer → Change → Sales and Distribution → Sales area data: Billing document tab page***

6-1-1 ***Logistics → Sales and distribution → Sales → Order → Display***

Choose **Display doc. header details**.

Choose the **Partners** tab page.

After changing the address in the customer master, it also changes in the order.

6-1-2 ***Logistics → Sales and distribution → Sales → Order → Display***

Choose the **Sales** tab page.

The terms of payment have not changed. The new terms of payment in the customer master only become effective when you create new sales orders. You would have to change them manually in the sales order that has already been entered, if required.

The only exception to this is the address. If it is changed, it becomes immediately effective in sales orders that already exist.

7-1-1 ***Logistics → Sales and distribution → Sales → Order → Display***

Choose **Header output view**. (The layout of an output can be changed using the SAPScript functions.)

8-1-1 *Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order*

Ship-to party: **T-S50B##**

9-1-1 *Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Complete*

Choose *Customer's sales areas*

9-1-2 *Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Complete
Extras → Administrative data*

9-1-3 *Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Full
Environment → Account changes → All fields*

Place the cursor on the relevant line and choose *Choose*.

9-1-4 *Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Full
Environment → List documents → Orders*

Choose **ENTER**.

10-1-1 You would have to create the sales area data for this customer for the relevant sales area with sales organization 1020 as well.

10-1-2 Yes. You can maintain the Incoterms in the customer master record in various ways, depending on the sales area (sales organization, distribution channel, division).

10-1-3 No. The address of the sold-to party is maintained independently of the organizational units. (It is possible to assign several ship-to parties to a sold-to party).

Solutions



Unit: Master Data in Sales and Distribution

- **Material master**
- **Customer-material info**
- **Incompletion**

11-1-1 *Logistics → Sales and distribution → Master data → Products → Material → Trading goods → Create*

The material number is assigned internally by the system.

12-1-1 *Logistics → Materials management → Inventory management → Goods movement → Goods receipt → Other*

The document number is assigned by the system.

13-1-1 *Logistics → Sales and distribution → Sales → Order → Create*

13-1-2 Save your entries, although the document is still incomplete. The document number is assigned by the system.

14-1-1 *Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order*

You cannot create the outbound delivery because the order to be delivered is still incomplete due to the missing entries for weight.

15-1-1 *Logistics → Sales and distribution → Master data → Products → Material → Trading goods → Change*

You can maintain the weight on the *Basic data 1* or on the *Sales: General/Plant Data* tab page. view. (The weight data is independent of the organizational units.)

16-1-1 When the material master record is modified, there will be no changes to the sales order that has already been entered in the system. The changes in the material master record only become effective in orders that are entered afterwards

16-1-2 ***Logistics → Sales and distribution → Sales → Order → Change***

Choose ***Display item details*** and the ***Shipping*** tab page .

17-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order***

The outbound delivery can be created because the order to be delivered is now complete .

17-1-2 Choose ***Display item details*** and the ***Texts*** tab page.

First of all, the text was copied from the material master into the sales order. Then it was copied from the sales order into the outbound delivery.

18-1-1 ***Logistics → Sales and distribution → Master data → Agreements → Customer-Material Information → Create***

Choose ***Info record details*** in order to enter the customer material description and the minimum delivery quantity.

19-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

Choose the ***Ordering party*** tab page to enter the item using the customer material number.

19-1-2 The document number is assigned by the system.

20-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order***

The document number is assigned by the system.

20-1-2 ***Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Display → Outbound delivery → Issue delivery output***

Choose ***Print preview***.

The customer material number is automatically issued on the delivery note.
(The layout of an output can be changed using the SAPScript functions.)

21-1-1 Yes. In the material master, there are various ways to maintain multiple fields, such as the sales units, depending on the sales organization and on the distribution channel.

21-1-2 Yes. In the material master, there are various ways to maintain multiple fields, such as the loading group, depending on the plant.

21-1-3 No. The division in the material master is not an organizational unit that can be used to maintain related fields. It is a field which is used to uniquely assign a material to a division.

21-1-4 Yes. In Customizing, you can configure the system for cross-division or division-specific sales. You can enter multiple materials with various divisions in a sales order, depending on these settings.

Solutions



Unit: Master Data in Sales and Distribution - Condition Master Data in Pricing

22-1-1 *Logistics → Sales and distribution → Master data → Conditions → Selection using condition type → Create*

Condition type **PR00**

Key combination Customer/material with release status

Enter Sales organization **1000**, Distribution channel **12**, Customer **T-S50A##** and Material **T-AS1##**.

Choose **Scales**.

Enter **Validity Today**

to End of the year

Enter the values from the exercise.

Choose **Save**.

23-1-1 *Logistics → Sales and distribution → Sales → Order → Create*

23-1-2 Choose **Conditions Item**

The system has determined a price of **28 UNI per piece**, as in the price condition record from 10 pieces a price of 28 UNI per piece is stored.

23-1-3 Choose **Save**.

The document number is assigned by the system.

24-1-1 ***Logistics → Sales and distribution → Master data → Conditions → Selection using condition type → Create***

Condition type K007

Enter **Sales organization 1000, Distribution channel 12, Division 00** and **Customer T-S50A##**.

Choose **Scales**.

Enter **Validity Today**

to End of the year

Enter the values from the exercise.

Choose **Save**.

25-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

25-1-2 Choose **Display item details**.

Choose the **Conditions** tab page.

The system has determined the customer discount K007 (-1%), because in the discount condition record from 100 UNI a discount of -1% is stored.

25-1-3 Choose **Save**.

The document number is assigned by the system.

26-1-1 Prices

Surcharges / Discounts

Freights

Taxes

26-1-2 Yes. Usually, the price is maintained according to the sales organization and the distribution channel. In addition to this, you can maintain the price according to further criteria, such as the customer.

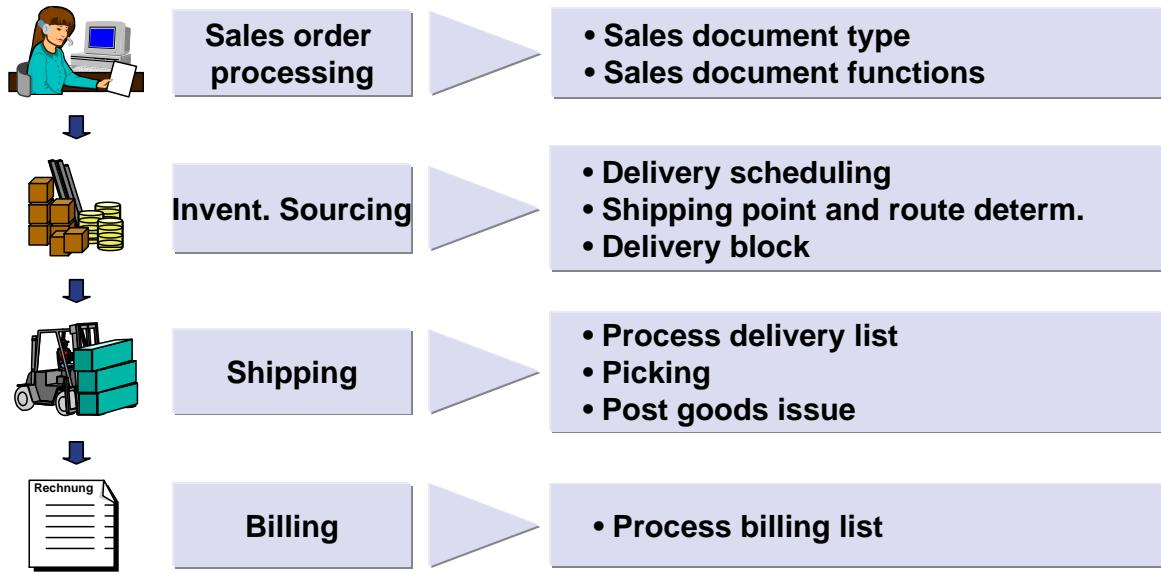
26-1-3 Yes. Usually, during order entry you can overwrite the price manually . However, it is possible to restrict this by making the relevant settings in Customizing or in the condition record.

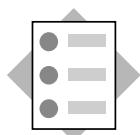
26-1-4 Yes. In Customizing, you can set up division 00 as a representative division and reference from divisions 01 and 02 to it. In this way, the condition master data of division 00 is also valid for divisions 01 and 02.

26-1-5 For customer master data, it is possible to configure common master data for the divisions.

For material master data, this is only possible for distribution channels, as the division in the material master is not an organizational unit that can be used to maintain related fields.

Contents:



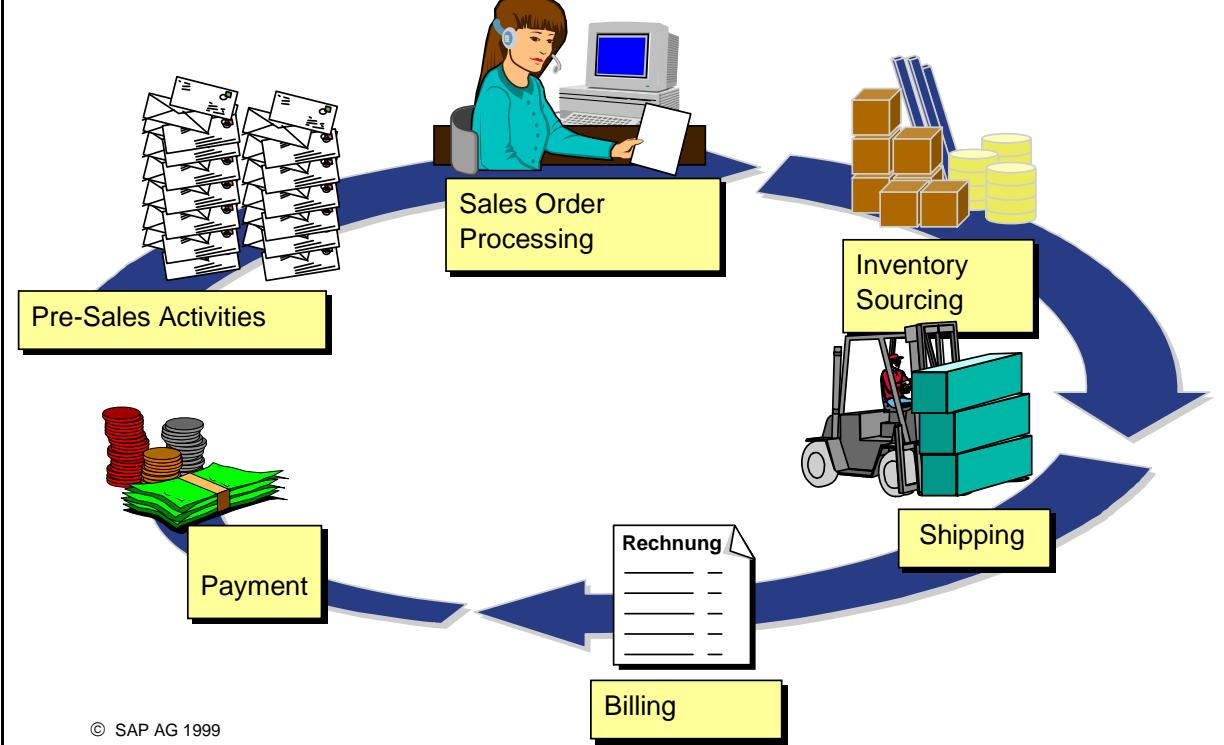


At the conclusion of this unit, you will be able to:

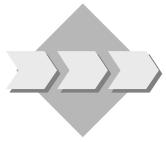
- explain the impact of using different sales document types on the sales process
- explain how the delivering plant, shipping point and route are determined automatically
- give the customers delivery dates automatically determined in the system and be able to look at scheduling in detail
- for each process step:
 - combine and collectively process sales orders due for outbound delivery
 - combine and collectively process documents due for billing

Overview Diagram of Processes with Stock

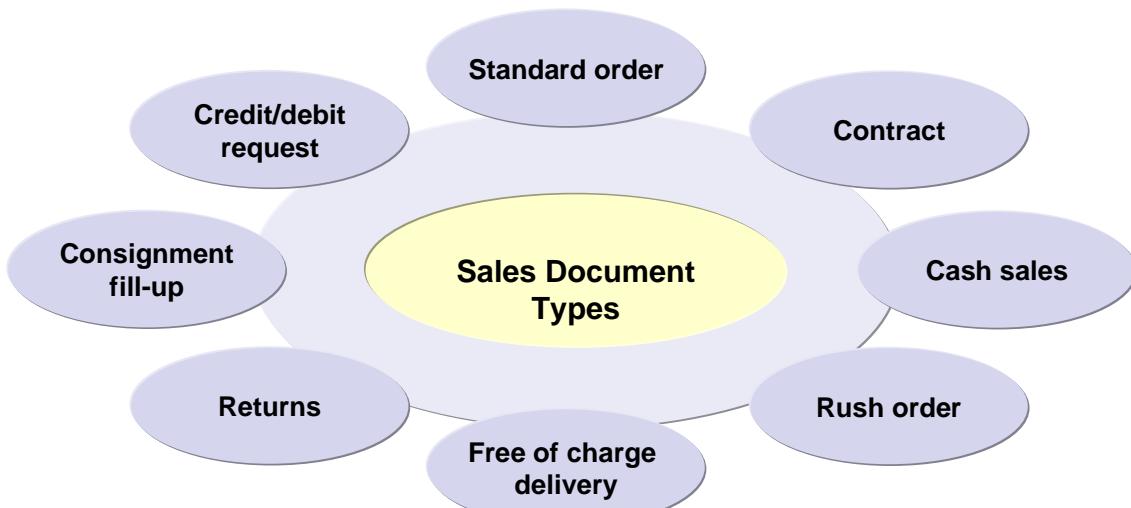
SAP



- This unit will assume that all required materials are available.
- Business processes in the pre-sales stage and payment are not included in this unit's scenario.

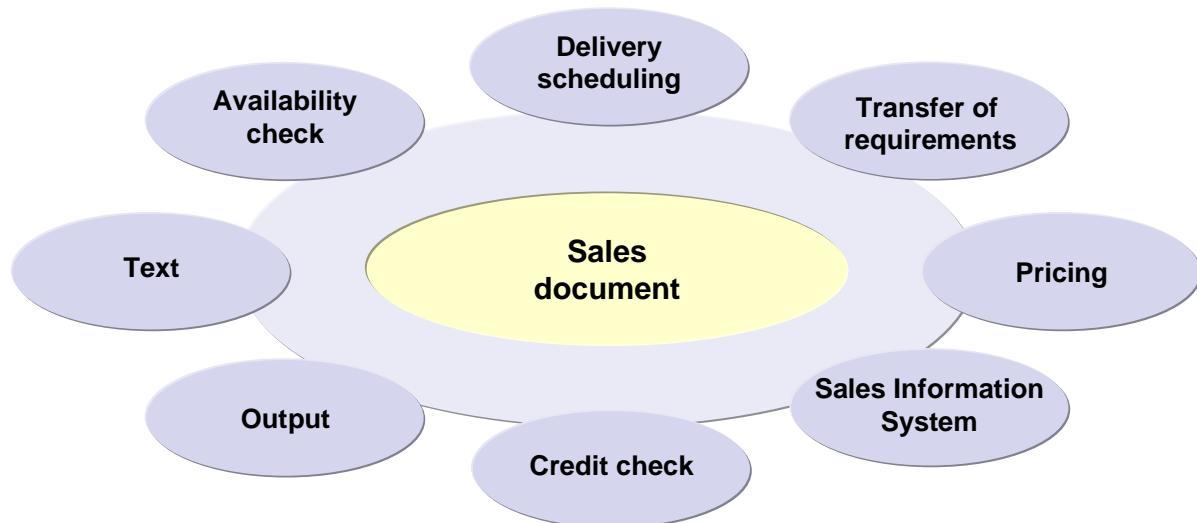


- **Outbound delivery from available stock; the traders order on the basis of their forecasts**
- **Automatic recognition of customer loyalty by offering special discounts**
- **Cost reduction by automatically combining orders for shipping processing**
- **Automatic creation of billing documents in collective processing on fixed invoicing dates**



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- In sales as a rule a number of activities must be carried out. Different types of business processes can be identified and controlled using the sales document type.
- The SAP standard system gives you a range of sales document types for frequently occurring sales and distribution processes, for example:
 - the standard order for sales on fixed delivery dates and against the invoice
 - Rush order and cash sales for sales from the plant and with or without invoice
 - free-of-charge delivery for sales and distribution on fixed delivery dates and without invoice
 - returns for taking back faulty goods and credit memo or replacement delivery
 You can use these processes without making any changes to them or use them as a reference for creating your own.
- You can control the documents in Sales using the sales document type. In addition to this you can control the documents in shipping with the delivery type and the documents in billing with the billing type.



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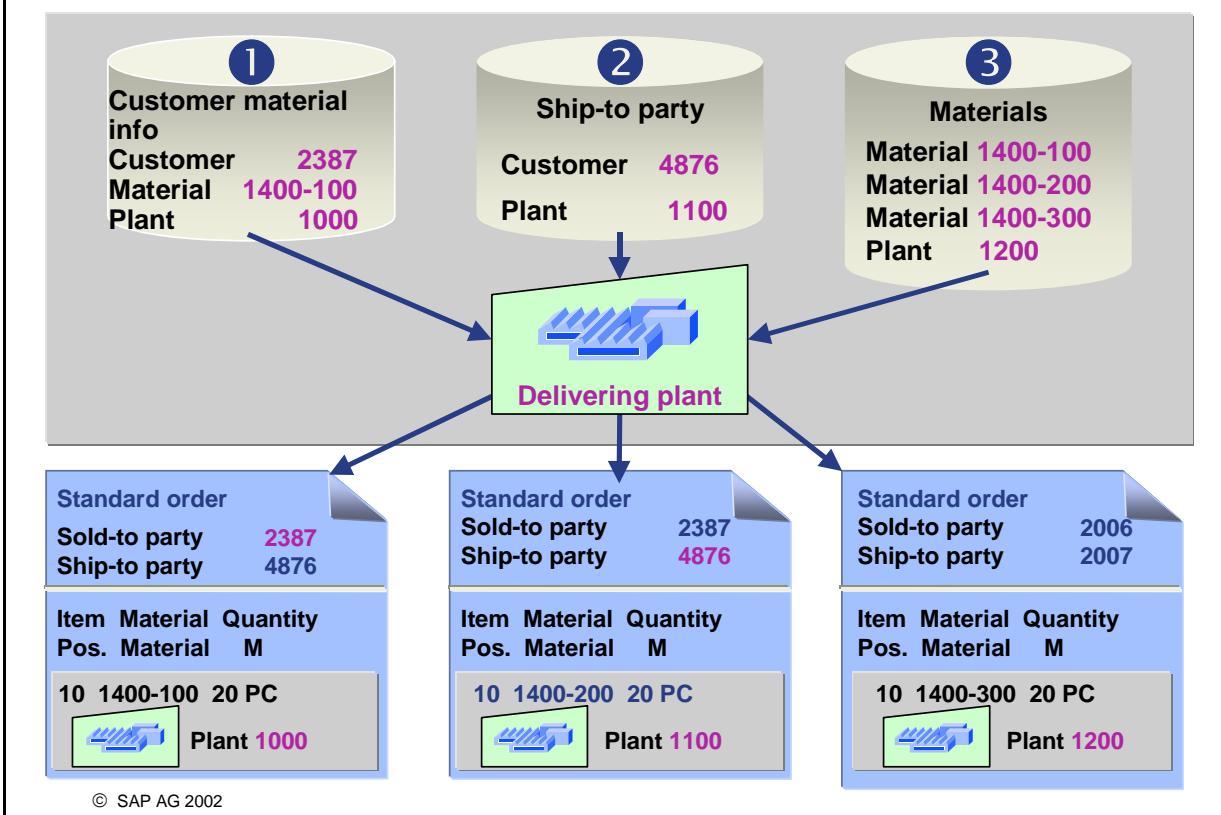
- Certain functions are executed automatically, depending on the business transaction. These functions are activated or deactivated directly or indirectly using the sales document type.
- Examples
 - As part of the normal sale process, you want the system to determine automatically the point at which your customer received the goods they had ordered. To do this you activate the delivery scheduling and availability check functions. These functions are not necessary for credit memo requests.
 - You do not need pricing for free-of-charge deliveries.
 - You define an output group that is relevant for processing sales orders and another output group for contracts.

Note:

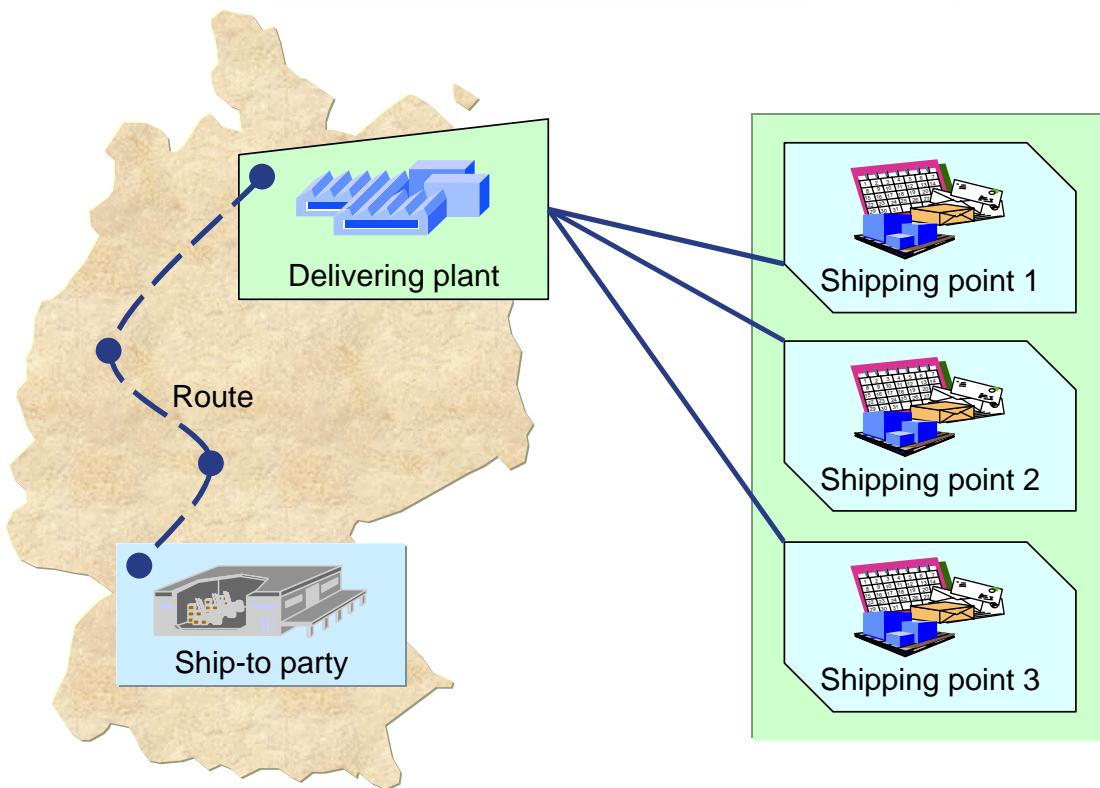
Output is information that is exchanged between business partners, for example, an order confirmation, an invoice form, electronic message to a employee,...

Determining the Delivering Plant Automatically

SAP

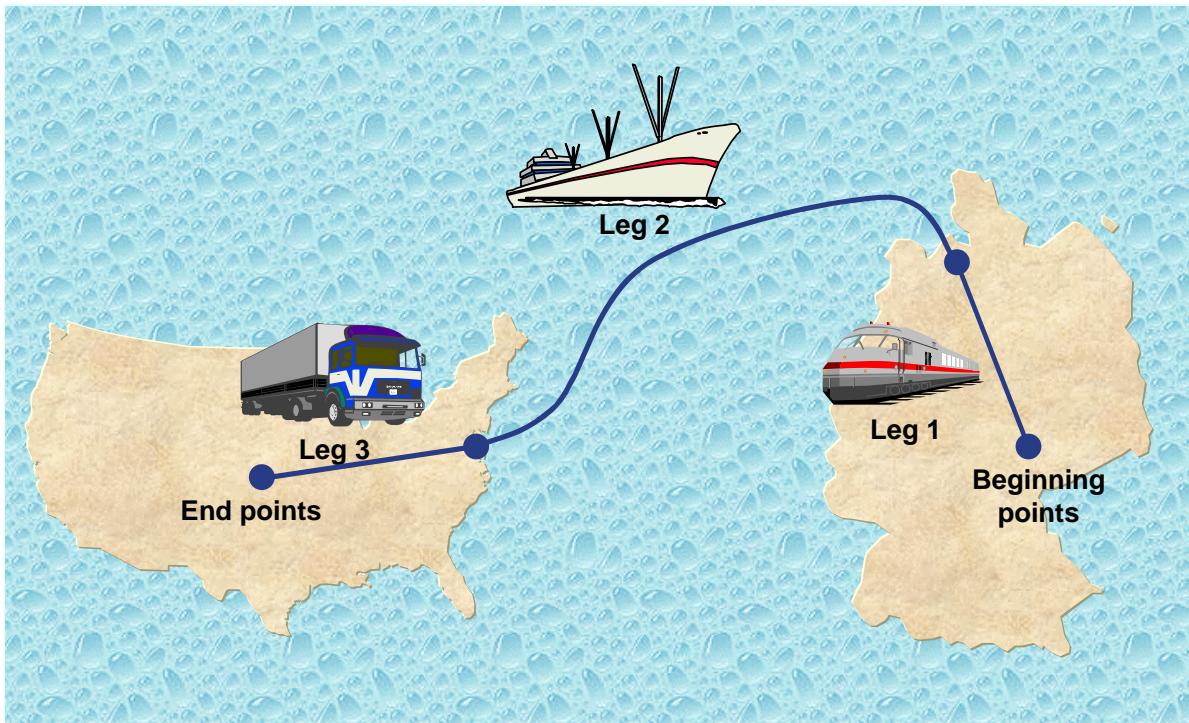


- The plant has a central function in the Logistics area. In SD it takes on the role of the delivering plant.
 - During item processing, the R/3 system tries to determine the relevant delivering plant automatically from the master data. The entry can be changed manually at a later date.
 - The system proceeds in accordance with the following search strategy:
 - In the first search step, the system checks whether anything has been established in the customer-material info record.
 - In the second search step, the system checks whether anything has been established in the customer master record for the ship-to party.
 - The third search step checks whether anything has been established in the material master record.
 - If none of the search steps are successful, no delivering plant is set in the sales document item.
- As a rule the item can not be processed further without a plant. For example, there can be no automatic determining of the shipping point or automatic tax determination, no availability check can be carried out and no outbound delivery can be set up.



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- The shipping point is the organizational unit in the R/3 system responsible for shipping processing.
- To be able to give the customer a delivery date for a material ordered, the system must take into account all of the necessary preliminary leg time for the different processes in shipping and transportation processing.
- You can specify times that you need at the shipping point for preparing and loading goods.
- The shipping point is normally determined for each document item in the sales document. The automatic default value can be changed manually at a later date, if you wish to have alternative shipping points.

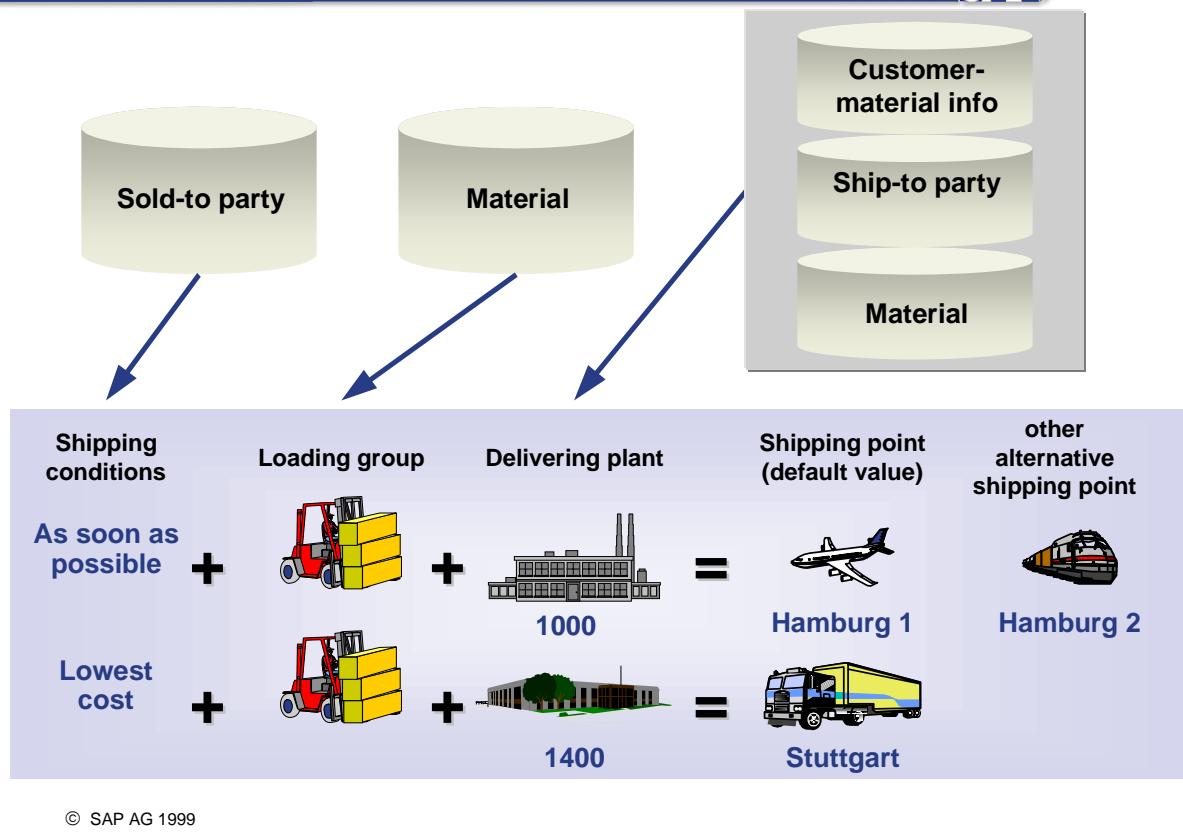


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- The route is the transport channel of an outbound delivery from the delivering plant to the ship-to party.
- It can consist of more than one section and has a beginning point and an end point.
- You can use this route to define the actual transit time (period in which the goods are being transported) and the lead time for transportation planning.
- The route is normally determined for each document item in the sales document.
The automatic default value can be changed manually at a later date, if you wish to have alternative routes.

Determining the Shipping Point Automatically

SAP

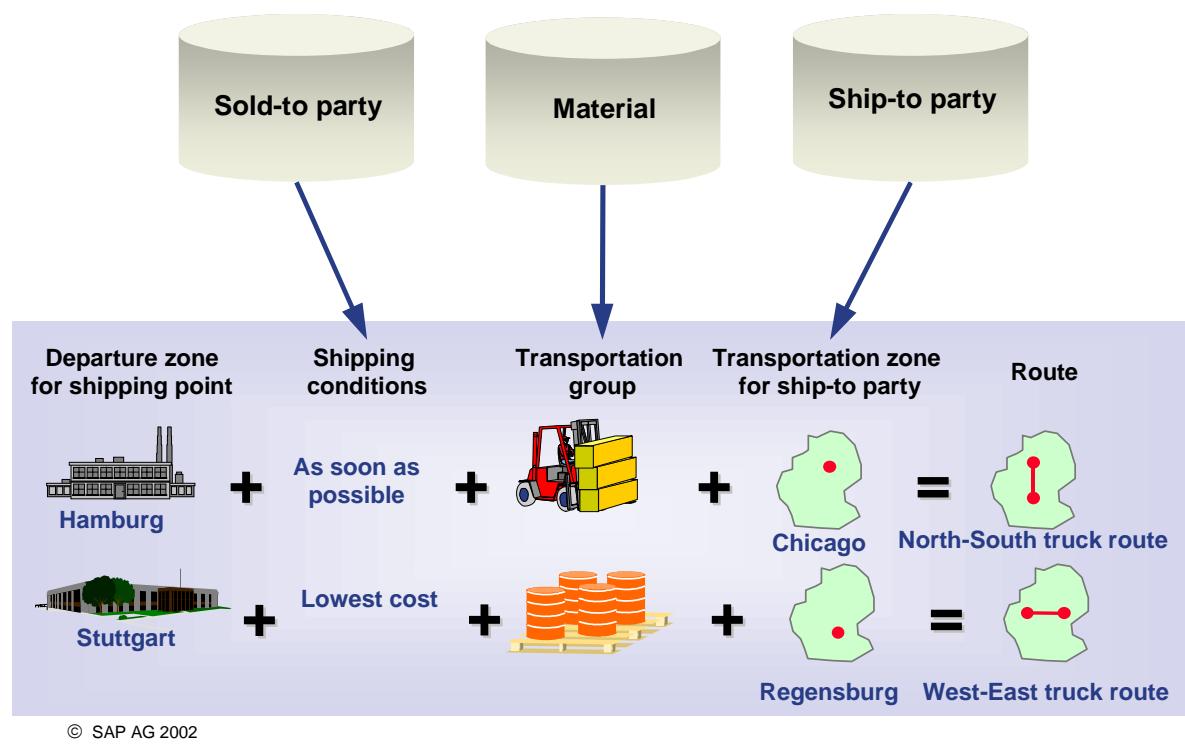


- The system tries to determine a shipping point for every item to be delivered.
- The R/3 System uses three fields as search keys for determining the shipping point automatically. This data is normally defined in the following master records:
 - Shipping condition from the sold-to party (View: Shipping)
 - Loading group from the material (View: Sales: General/Plant Data)
 - Delivering plant - see the slide *Determining Delivering Plant Automatically*
- Note:

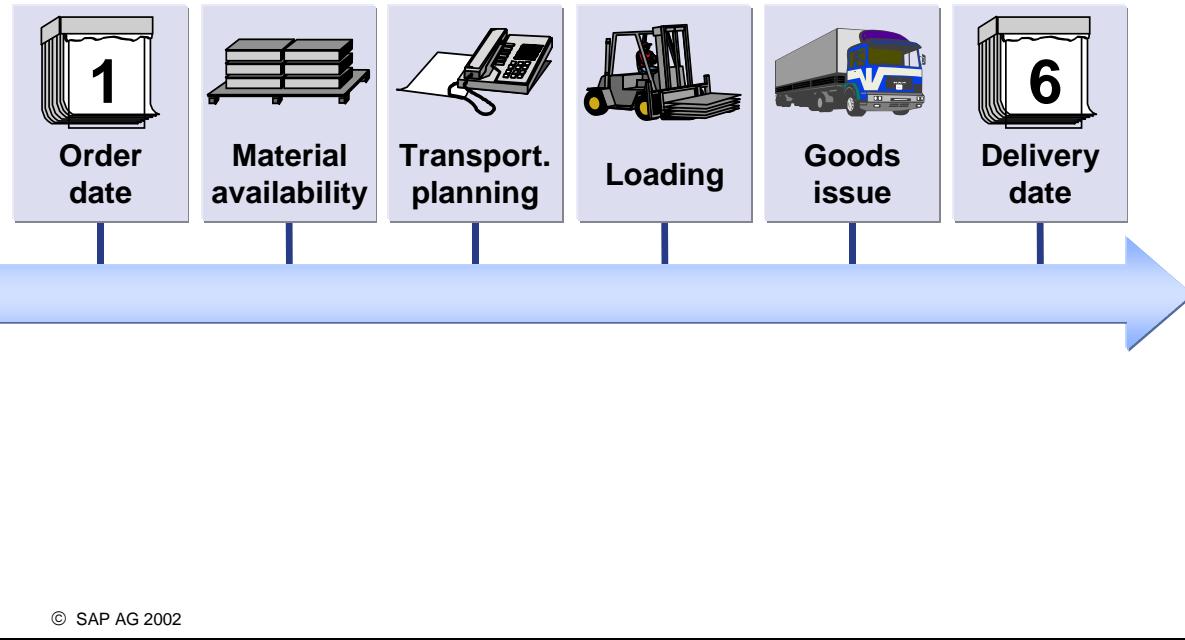
The shipping conditions are used to define customer requirements in the R/3 System, such as how the orders are to be delivered.

Determining the Route Automatically

SAP



- The system tries to determine a route for every item to be delivered.
- The SAP system uses four separate points as search keys for determining the route automatically. Normally this data is defined in master records and in Customizing:
 - the departure zone in Customizing for the shipping point
 - the shipping condition in the sales and distribution-specific data for the sold-to party (View: Shipping)
 - the transportation group in the sales and distribution-specific data for the material (View: SD: General/Plant)
 - the transportation zone in the ship-to party general data view



- During delivery and transportation scheduling, the point at which the goods arrive at the customer can be confirmed (confirmed delivery date). Different lead times are taken into consideration here: the pick/pack time, loading time, transportation lead time and the transit time
- The following data plays a role in delivery scheduling:
 - Order date: Date on which the order was issued
 - Material availability date: Date on which sufficient goods should be available for picking and packing
 - Loading date: Date on which picking and packing should be completed (and the mode of transport should be there), in order that loading can begin on time
 - Goods issue date: the date on which the goods must leave the delivering plant, in order that they arrive at the customer's at a specific time
 - Delivery date: Date at which the goods arrive at the customers. Here a difference is made between:
 - Required delivery date: Date on which the customer wishes to receive his goods and confirmed delivery date: Date on which the arrival of the goods at the customers can be confirmed.

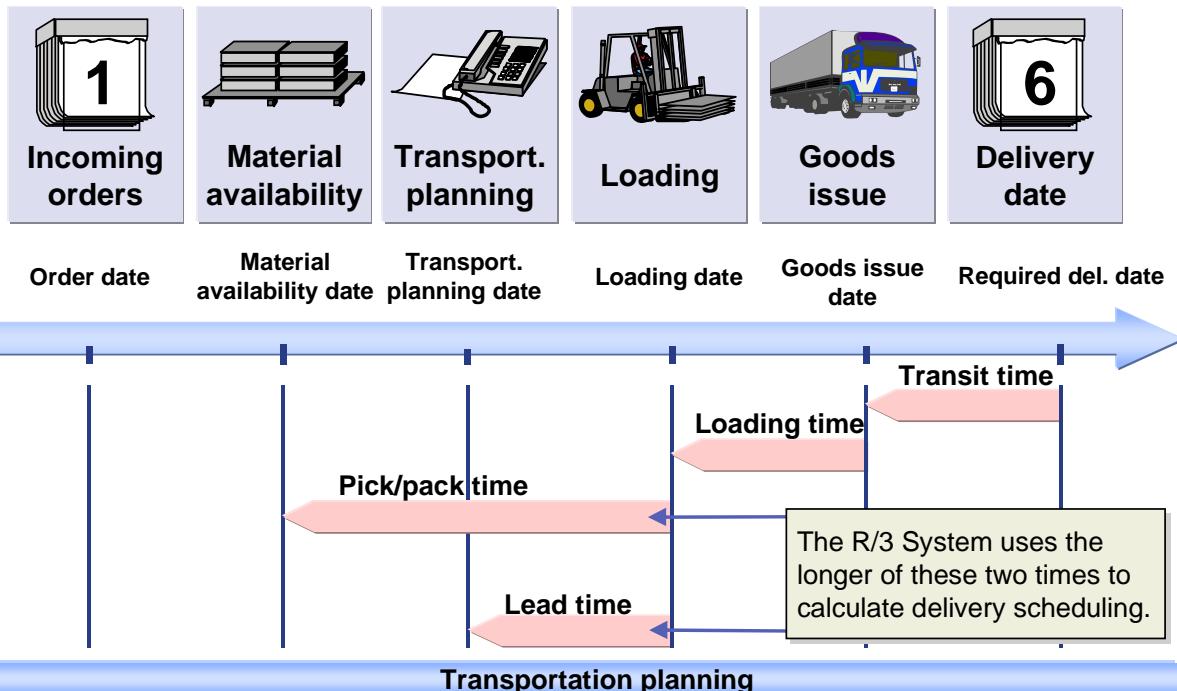


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- When determining a delivery date, you can take into account the times required to deliver the goods via a route to the customer.
- The total time includes:
 - Transit time:
time required to transport the goods to the customer
 - Transportation lead time:
time needed to prepare the transportation of the goods.

Backward Scheduling

SAP

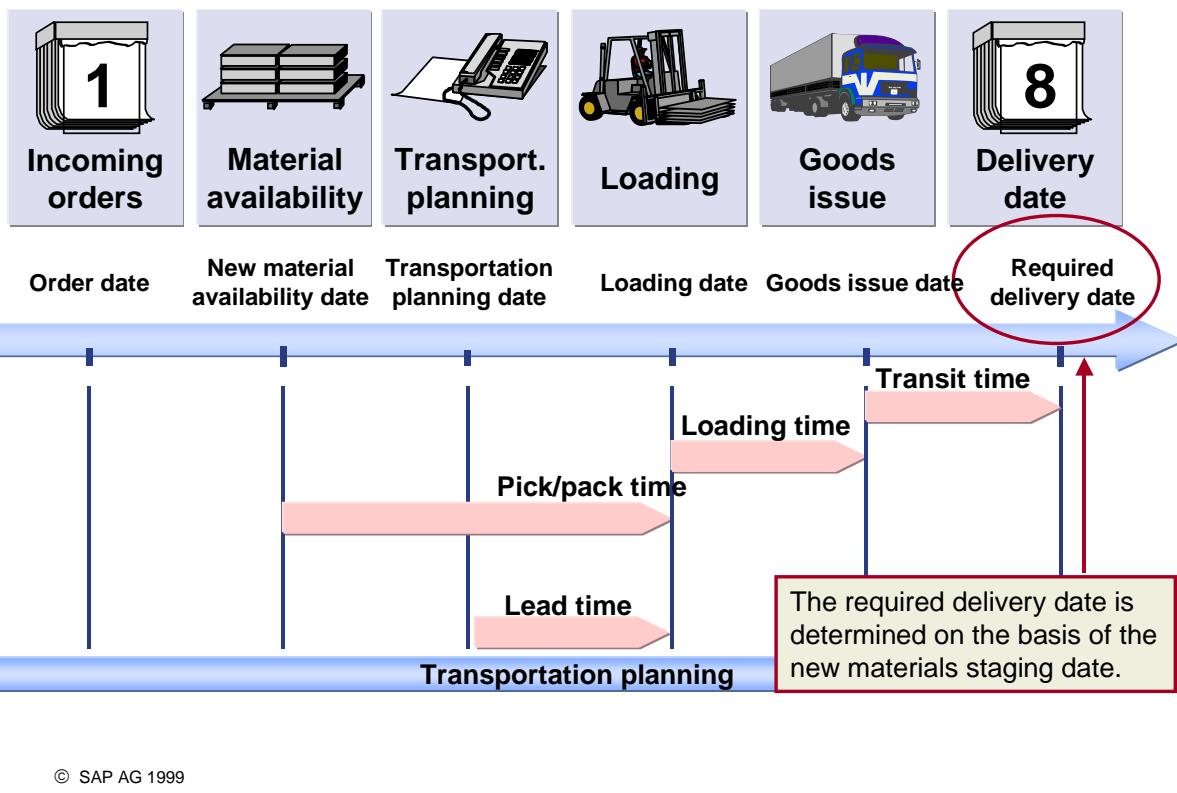


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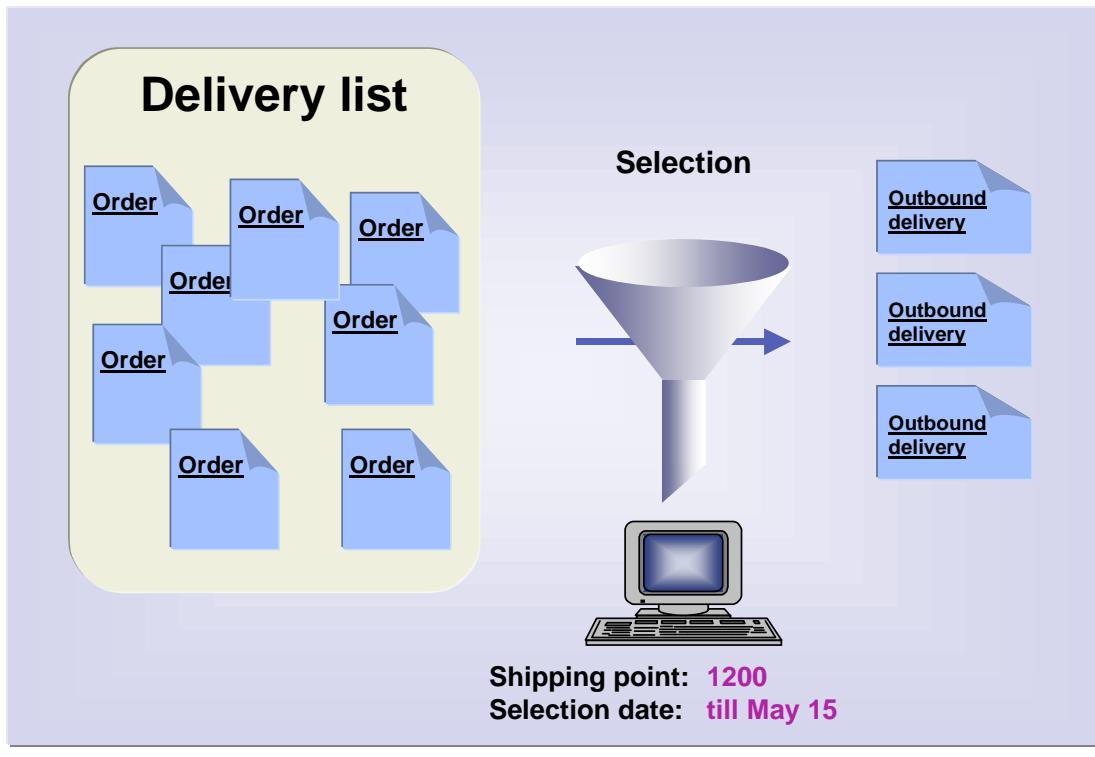
- The aim of shipping and transportation scheduling is for the customer to confirm a delivery date for the material ordered.
- In backward scheduling, the materials staging date and the transportation planning date are calculated from the required customer delivery date. The outbound delivery must be created on the earlier of the two dates (selection date of the outbound delivery)
 - If both dates are after the order date and the material is available on the materials staging date, the required delivery date is confirmed to the customer.
A schedule line is created for a sales document item. The date of the schedule line corresponds to the confirmed delivery date, which corresponds to the required customer delivery.
 - If one of the two dates is before the order date, there can be no confirmation of the required delivery date. Therefore the system now tries to determine the next possible date (forward scheduling).

Forward Scheduling

SAP



- If the result of backward scheduling means that the delivery date required by the customer cannot be confirmed, the system executes forward scheduling.
 - Forward scheduling takes into consideration the time parallels of the work flows for transportation planning and picking/packing of materials. The longer of the two periods is relevant for scheduling. The selection date of the outbound delivery is the earlier of the material availability or the transportation planning date.
 - The earliest date at which the material is available in the warehouse is the new material availability date. This is the outgoing point for new delivery scheduling.
- Two schedule lines are generated for the sales line item:
 - The date of the first schedule line corresponds to the customer's required delivery date and has no confirmed quantity.
 - The date of the second schedule line shows the confirmed delivery date and the confirmed amount.

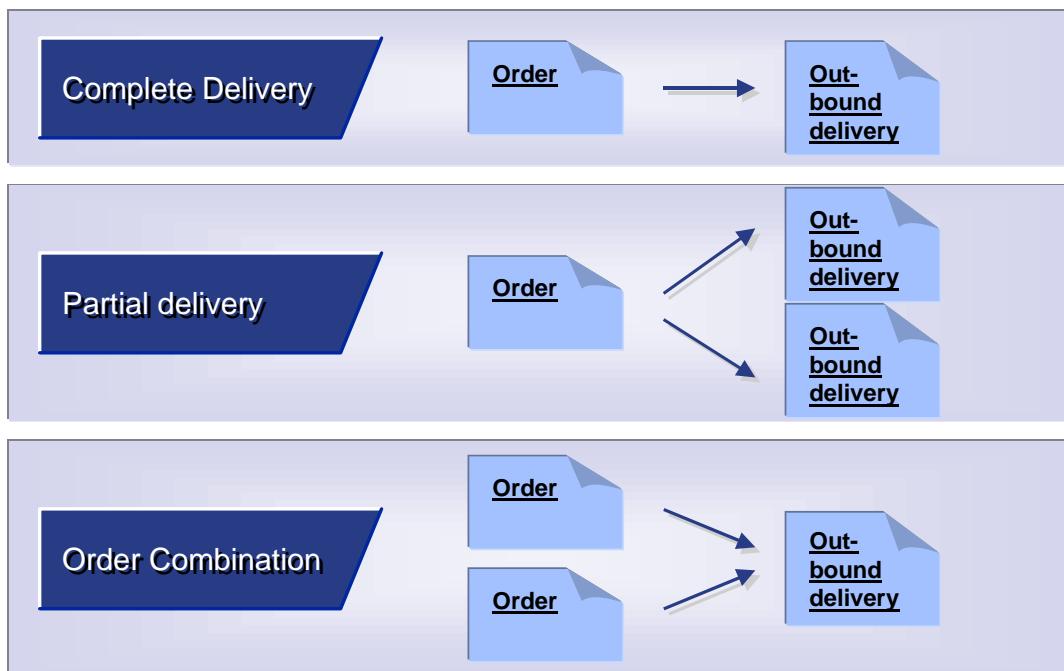


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- To make shipping faster and easier, the R/3 System provides the delivery list so you can process more than one delivery at a time. The system automatically puts together items from the selected sales orders in as few outbound deliveries as possible. This function can be executed by:
 - Online processing of the delivery list
 - Creating a background job to be executed during off-peak hours
- Setting up outbound deliveries in the system depends on the shipping point, the selection date and other criteria which are grouped on different tab pages. Once you have set these criteria, you can control the selection of transactions due for shipping. The options for selection vary according to delivery scenario and user role.
- You receive a list of the transactions concerned based on your selection. In this list, you can make your selection more precise using sorting and filtering.
- You can create outbound deliveries from the list either online or in the background and you can branch into the documents.
 - Note: When you set the selection date, you define the date on which the items due for delivery are to be taken into account for collective processing. This is the latest date that you can start shipping processing, for the goods to still arrive at the customer's on time. It either corresponds to the materials staging date or the transportation planning date.

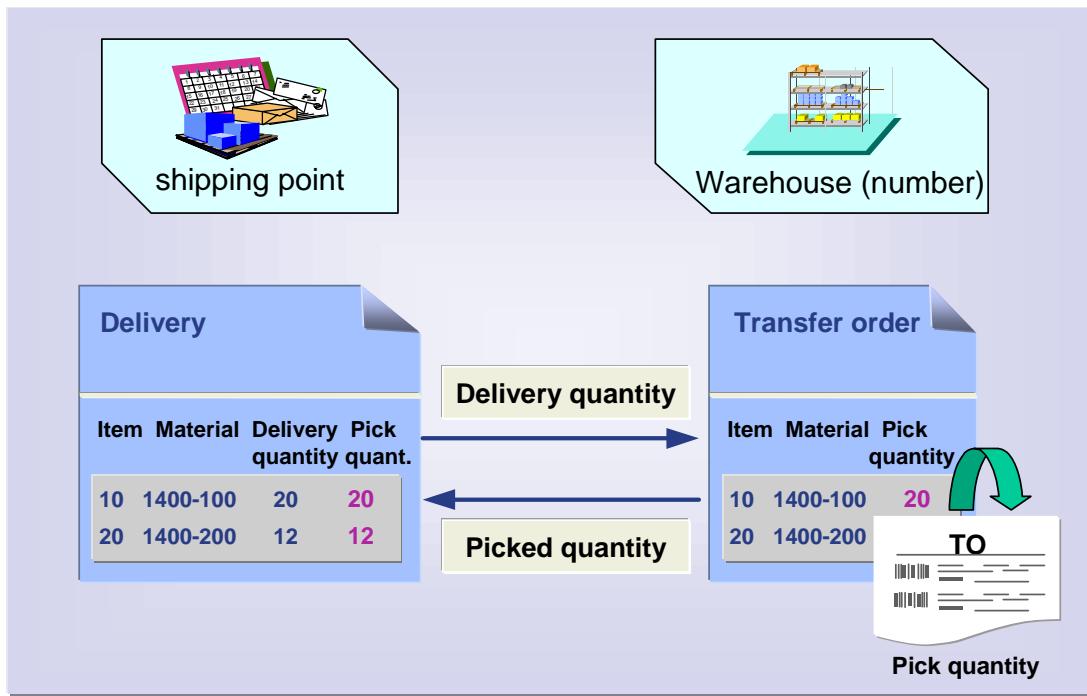
Outbound Delivery Options

SAP



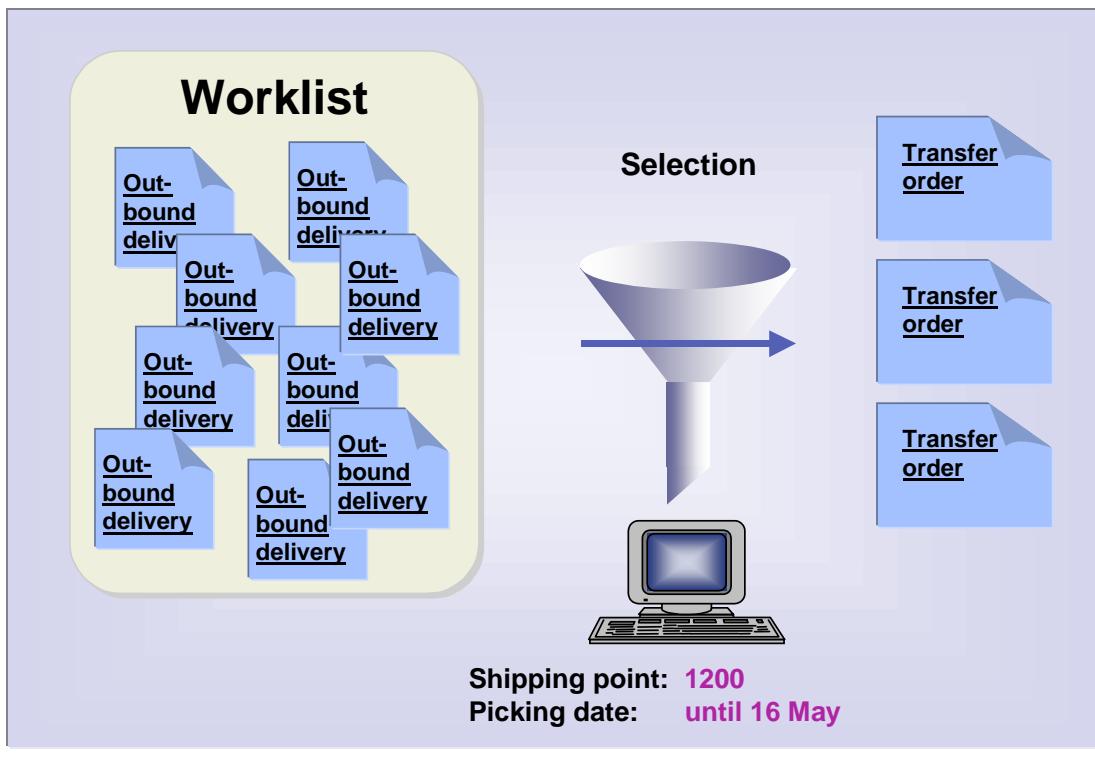
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- There are fields in master data and in the sales document where you can store customer defaults for processing deliveries.
 - If the customer requires complete delivery, the order should be delivered in one single delivery. All items should be delivered at the same time. When creating an outbound delivery, if all of the order items cannot be shipped with the full order quantity, you receive a warning that the customer requires complete delivery.
 - If the customer does not require complete delivery, you can define a partial delivery agreement with the customer.
 - For example: If the customer allows orders to be combined, the R/3 System combines orders when creating the Delivery Due List. Combining items from different sales orders is only possible if the items have several common characteristics, for example:
 - Shipping point (goods issue from the same place in your enterprise)
 - Date that delivery is due (date on which shipping processing should begin, either materials availability date or transportation planning date) must be within the selection dates on the delivery list initial screen
 - Ship-to party (outbound deliveries have the same destination)
 - Route (same method of transport and route)
 - Incoterms (International Chamber of Commerce terms of liability for freight in-transit)



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- You can control an item in an outbound delivery so that picking is required.
- Picking is carried out by creating transfer orders with which you trigger and survey warehouse movements. The items in the transfer orders contain the materials and the quantities to be picked, which correspond to the delivery quantities. At the same time the delivery quantities are transferred into the outbound delivery as picking quantities.
- You can print the pick list for use in the warehouse from the transfer order.
- Picking confirmation can either be automatic or can be carried out in a speарате processing step.

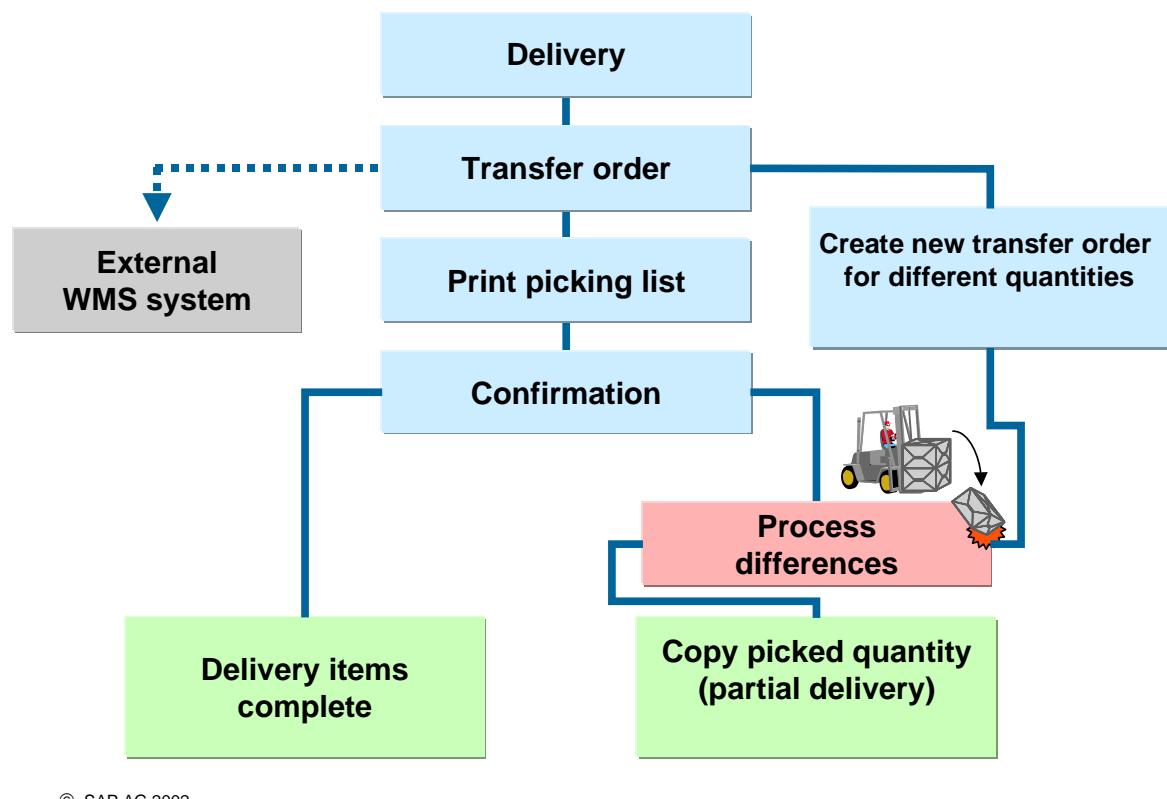


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- You can also introduce picking via collective processing. To do this, you select a worklist from all the outbound delivery ready for picking and create several transfer orders at the same time. The system automatically combines the outbound delivery items into as few transfer orders as possible.
- Collective processing can be executed as follows:
 - manually (online)
 - creating a background job to be executed during off-peak hours
- The system controls the creation of transfer orders via the shipping point, the selection data (picking date) and other criteria. You receive a list of the deliveries that meet your selection criteria. In this list, you can make your selection more precise using sorting and filtering.

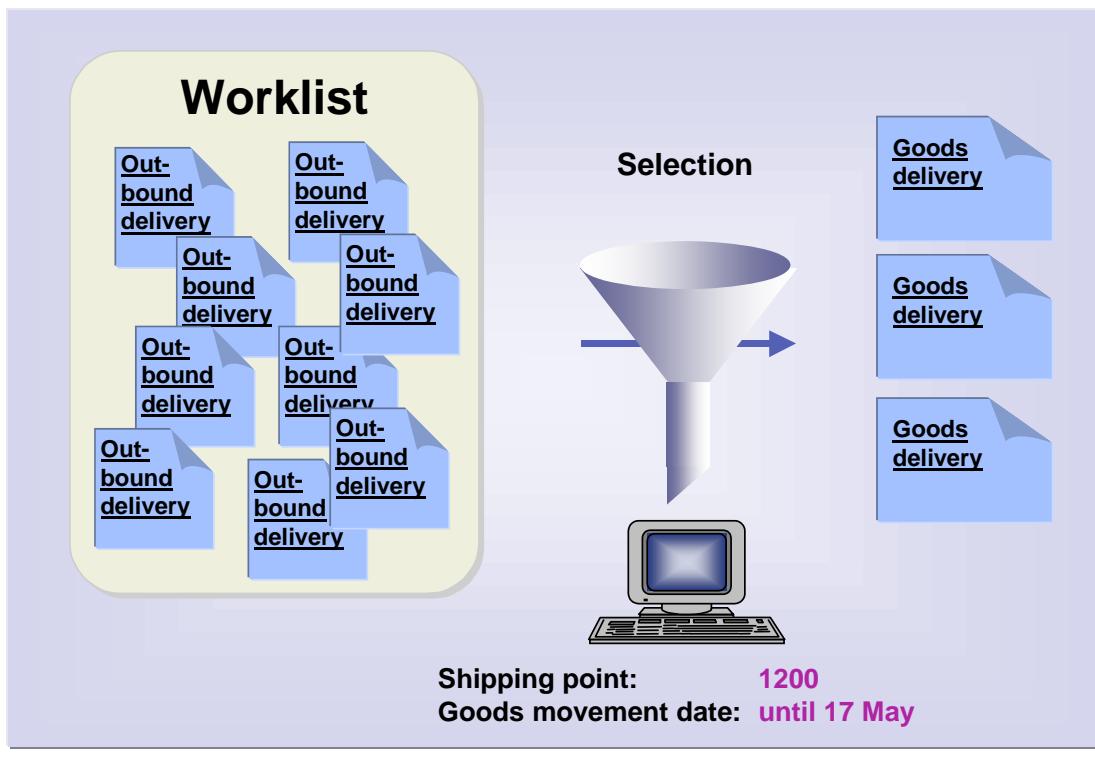
Picking Options

SAP



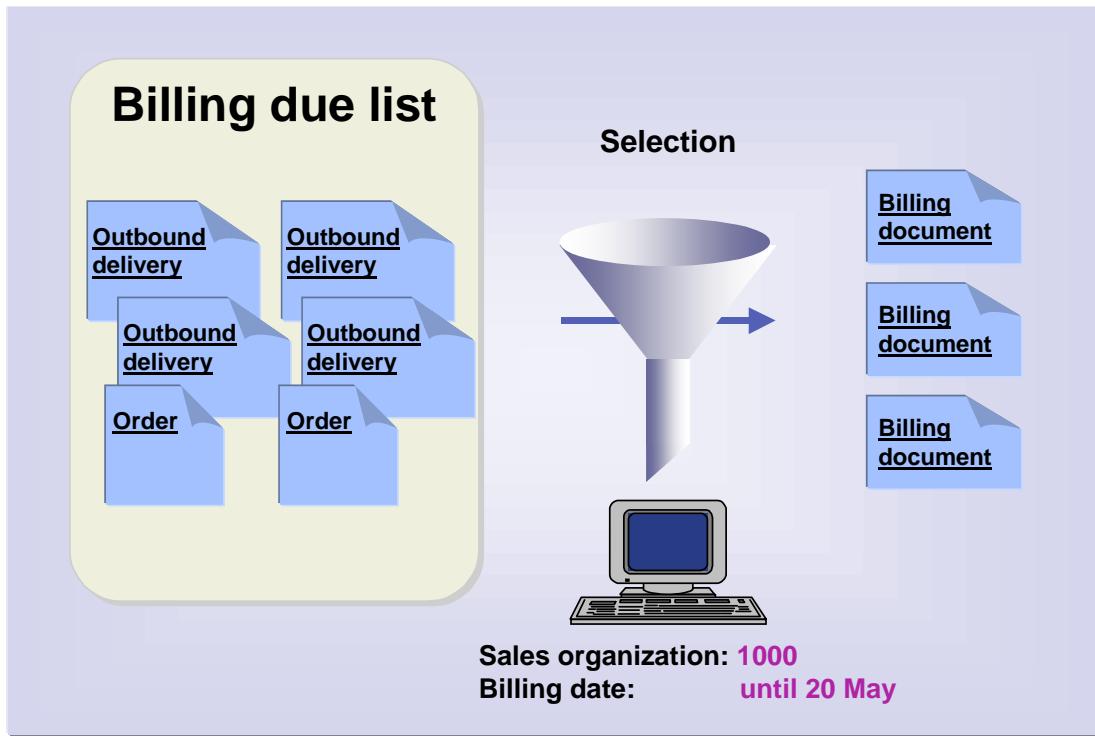
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- In the transfer order you print the picking list(s) for the warehouse. This step can be carried out automatically.
Instead of printing the picking list, you can forward the transfer request data, for example, via mobile data entry (MDE) to an external warehouse management system.
- If you do not carry out automatic confirmation, you can confirm the picked quantities for surveillance and control of picking manually. You can confirm differing amounts and define the reason for this with a deviation indicator.
- If the whole quantity cannot be picked, you can
 - pick the open quantities using another transfer order
 - reduce the delivery quantities in the outbound delivery by copying the picked quantities

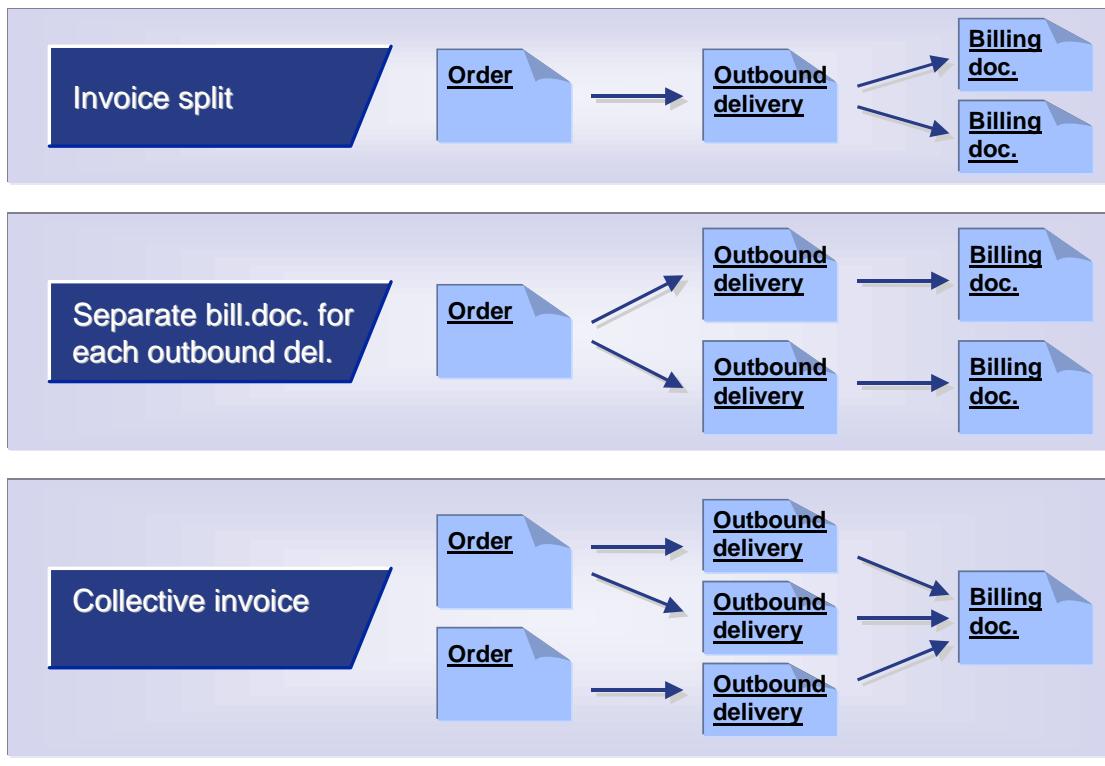


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- You can implement goods issue posting using collective processing. For this you select a worklist for all outbound deliveries for goods issue posting and post several goods deliveries at the same time. The system automatically combines the outbound delivery items into as few documents as possible.
- Collective processing can be set as follows:
 - manually (online)
 - creating a background job to be executed during off-peak hours
- The system controls the setting up of outbound deliveries via the shipping point, the selection date and other criteria such as the forwarding agent or the route. You receive a list of the transactions concerned based on your selection. If required, the list can also be triggered at item level. In this list, you can make your selection more precise using sorting and filtering.
- After you have finished the selection, post goods issue.



- To make billing faster and easier, the R/3 System provides the billing due list as a means to process more than one billing document at a time. The system combines as many items for billing as possible in as few billing documents as possible.
- This function can be executed by:
 - manual processing of the billing due list (online processing)
 - creating a background job to be executed during off-peak hours

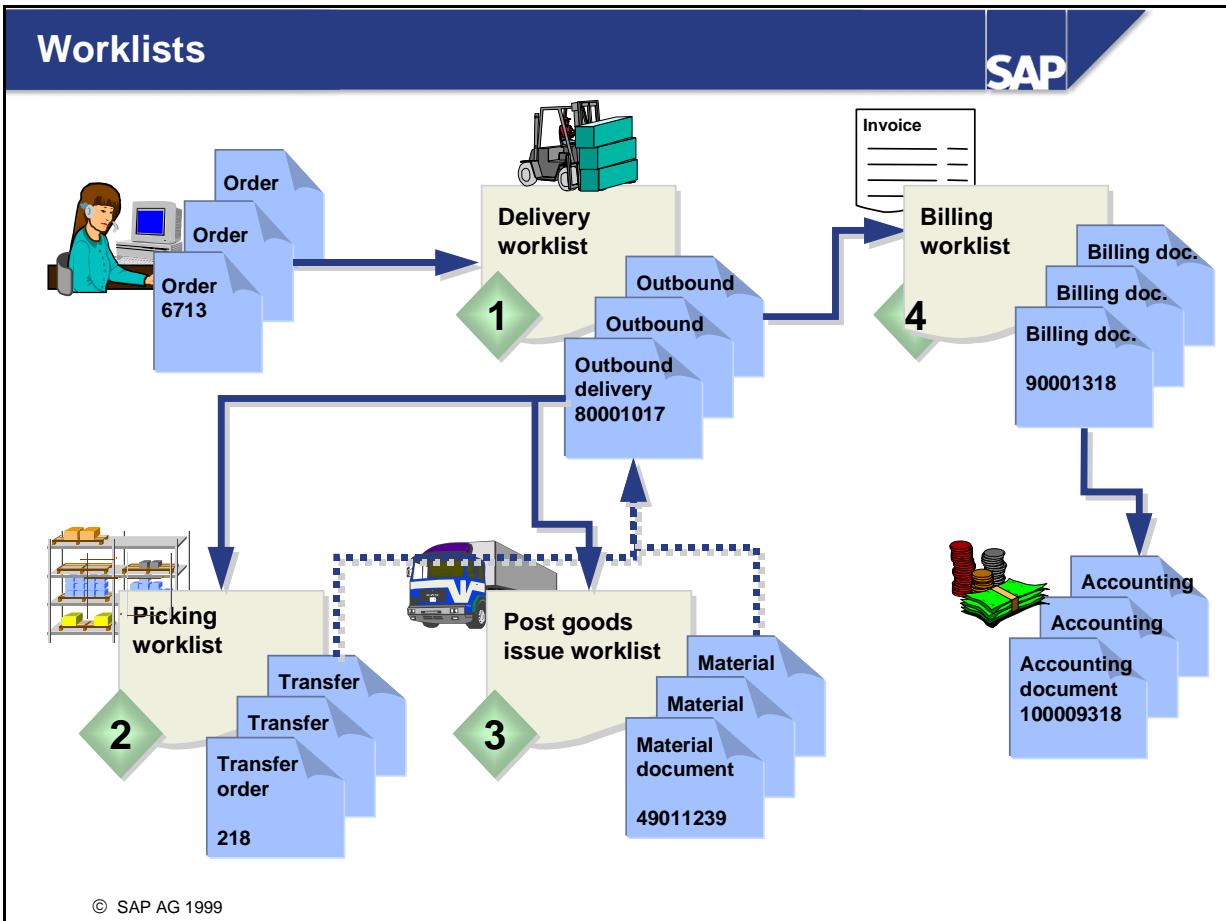


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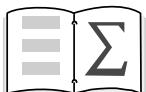
- When processing the billing due list, the R/3 System consolidates as many items as possible onto as few billing documents as possible. Depending on the system setting, these can either be order items or outbound delivery items.
- To be able to combine successfully, items must have specific common characteristics, for example, the same billing date, the same payer and terms of payment. The list of common characteristics are maintained in Customizing.
- The R/3 System contains a range of options for creating billing documents. You can choose the option that best suits your requirements. Here are a few of the most common options:
 - **Invoice split:**
You have a sales order for which one outbound delivery has been processed. Two billing documents are created from the outbound delivery, based on key differences between the line items, for example, different material groups.
 - **Separate billing document for each outbound delivery:**
You have a sales order for which two outbound deliveries have been processed. Two billing documents are created from the outbound delivery. You would choose this option if your customers typically verify the invoice against a bill of loading, for example.
 - **Collective invoice:**
You have two sales orders for which three outbound deliveries have been processed (for example, different ship-to party or partial delivery). A single billing document is created from the outbound deliveries.

Worklists

SAP



- This slide gives an overview of the options that are available for collective processing to support the sales and distribution process.
 - 1. The delivery list is used to process many sales documents for outbound deliveries.
 - 2. The picking worklist creates transfer orders for picking.
 - 3. The goods issue worklist for outbound deliveries will post goods issue for many deliveries.
Note: Transactions which require picking are only taken into consideration in this list after picking has been successfully carried out.
 - 4. The billing due list is used to create invoices for outbound deliveries and orders.
Note: Outbound deliveries are only taken into consideration in the billing due list if the goods issue has already been successfully carried out.



You are now able to:

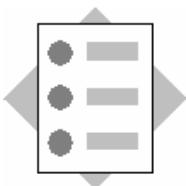
- **explain the impact of using different sales document types on the sales process**
- **explain how the delivering plant, shipping point and route are determined automatically**
- **give the customers delivery dates automatically determined in the system and be able to look at scheduling in detail**
- **for each process step:**
 - **combine and collectively process sales orders due for outbound delivery**
 - **combine and collectively process documents due for billing**

Exercises



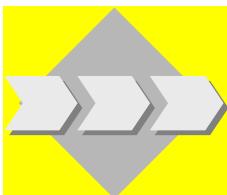
Unit: Sales From Stock - Available

- Sales order processing
- Inventory sourcing



At the conclusion of these exercises, you will be able to:

- start the different sales and distribution processes by choosing the appropriate sales document type
- find important information for inventory sourcing and the outbound delivery in the sales documents and identify the sources of this data
- Give your customers information from the Information details in the sales documents, for example, on the shipping and transportation scheduling dates



A company has a range of sales and distribution processes. Before every sale, one of your employees decides which sales and distribution process will best serve the customer's needs.

When a customer orders a material, there are a range of decisions to be made for the whole sales and distribution processing chain. This includes obtaining relevant information on inventory sourcing and the outbound delivery, such as the plant from which the goods will be delivered or the location responsible for shipping processing.

In order entry, the customer service representative determines whether the material is to be delivered from stock or whether the material must first be manufactured or procured from a vendor. Dabei muß berücksichtigt werden, ob das Material aus dem Bestand geliefert oder zuerst gefertigt bzw. extern beschafft wird.

IDES AG tries to meet most of its sales orders using existing stock. If possible, orders are combined into one outbound delivery to reduce freight costs.

If the required delivery date cannot be confirmed, the customer is offered the first possible delivery date.

As a member of the project team for sales order processing, it is your responsibility to test the sales and inventory sourcing processes in the R/3 System. You will enter orders and verify the shipping point for the product, the transportation route to the customer, and the scheduling dates for the items in the sales orders.

- 1-1-1 Enter a trade fair order for the following purchase order. Use the document type **Trade fair##-order**.

<u>Purchase order</u>	
Customer:	T-S50B##
Purchase order number:	6-111
Required delivery date:	in 10 days
 <u>Material Quantity</u> T-AS1## 7 T-AS2## 8	



Use the F4 help in the order type field.

Save the order and record the document number.

- 1-2 Name other sales document types.

- 1-2-1 Name a sales document type used for sales from the plant.
-

- 1-2-2 Name a sales document type used for sending free-of-charge goods samples.
-

2-1 By choosing the sales document type, you are choosing the basic requirements of the sales and distribution process.

2-1-1 Name sales document functions that may be affected by the choice of sales document type.

3-1 Identify the important information from the sales order that is used in the outbound delivery.

3-1-1 Display the previously entered sales order.

Which delivering plants have been specified for the two items?

Item 10: _____

Item 20: _____

3-1-2 Which shipping points have been specified for the two items?

Item 10: _____

Item 20: _____

3-1-3 Which routes have been specified for the two items?

Item 10: _____

Item 20: _____



In the sales document, you can view (or change) the delivering plant, the shipping point and the route from the *Shipping* tab page for the corresponding document item.

You can use the black arrows on the application toolbar to navigate easily between the *Shipping* tabs of the two items.

3-1-4 What is the purpose of the shipping point?

3-1-5 What is the purpose of the route?



You can use the F1 help to get information on the tasks and the use of the shipping point and the route.

3-2 The system tries to determine the delivering plant automatically for an item in the sales document.

3-2-1 The system checks three sources in which the delivering plant can be specified. What are these sources?

1. _____

2. _____

3. _____

3-2-2 Which delivering plant is set for the item, if there is no entry in these sources?

3-2-3 From which master record does the delivering plant in item 10 come?

3-3 The system tries to determine the shipping point responsible for executing the shipping activities of an item in the sales document.

3-3-1 The system uses three types of information from the sales order for determining the shipping point. What are they?

1. _____

2. _____

3. _____

3-3-2 What values are used for automatically determining the shipping point for item 10?

1. Delivering plant: _____

2. Shipping conditions: _____

3. Loading group: _____



The shipping conditions come from the customer master record of the sold-to party.

It can be viewed or changed in the sales document header by choosing *Display doc. header details* then choosing the *Shipping* tab page.

The loading group comes from the material master record. It can be changed or viewed on the *Sales: General / plant data* tab page. The loading group is not displayed in the sales document.

- 4-1 Explain on what dates the individual work stages for shipping and transportation processing should begin, so that the product ordered gets to the customer on time.

4-1-1 Enter a **standard order** for the following purchase order.

Purchase order		
Customer:	T-S50A##	
Purchase order number:	6-411	
Required delivery date:	today's date	
<u>Material</u>	<u>Quantity</u>	<u>Ship-to party</u>
T-AS1## 5		T-S50A##
T-AS3## 1		T-S50B##

To change the ship-to partner on a line item, select *Goto -> Item -> Partner*. Type the new ship-to party number over the existing one. The system will then re-determine critical fields automatically. Save the order and record the document number.

- 4-1-2 Display the previously entered sales order.
Determine the shipping dates for item 10.

Delivery date: _____

Goods issue date: _____

Loading date: _____

Material availability date: _____

Transportation planning date: _____



You can display a detailed list of the shipping dates for the confirmed schedule line of a sales document item. Call up the *schedule line* for the item and go to the detail for confirmed schedule line. Then choose the *Shipping* tab page.

- 4-1-3 At what point must the responsible shipping point start shipping processing so that the goods arrive at the customer's location on time?
-

- 4-1-4 Which of the steps for shipping and transportation processing must be completed so that the goods can be loaded on the correct loading date?
-
-



You can use the F1 help to get information on the tasks and the use of the different dates in delivery and transportation scheduling.

- 4-2 Create an outbound delivery for the first item in the above order.

- 4-2-1 Select the shipping point responsible. Use today's date as the selection date. Restrict the selection to the first item in the sales document. Can you deliver the order? Why or why not?
-
-

- 4-2-2 If you could not create a delivery in the previous step, make the same selection again but use the material availability date as a selection date. Can you deliver the order item this time? Why?
-
-

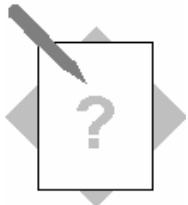
Do **NOT** save the outbound delivery.



If you have accidentally saved the outbound delivery, delete the delivery document with the menu path:

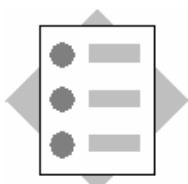
*Logistics → Sales and distribution → Shipping and transportation
→ Outbound delivery → Change → Single document → Outbound delivery → Delete*

Exercises



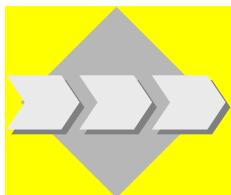
Unit: Sales From Stock - Available

- Shipping
- Billing



At the conclusion of these exercises, you will be able to:

- Use worklists to identify documents ready for subsequent processing and to process selected documents collectively
- Combine orders for one customer
- Create and print pick lists
- Update stock quantities and stock accounts after the outbound delivery is fully processed
- Create collective or individual invoices
- Identify receivables and revenues based on billing documents and post to the corresponding accounts in financial accounting



Although you enter orders one at a time, work packages can be created that allow you to collectively execute shipping and billing activities for many orders at the same time.

It is more important to have efficient sales and distribution processing so that for these steps in the process, work packages can be combined and processed together.

These work packages often have the same criteria, enabling these steps to be automated and to be executed at specific times by the system.

The following tasks occur during the course of further sales and distribution processing: creating delivery notes, picking, shipping goods to the customer, creating invoices and posting receivables and revenues in financial accounting.

As a project team member, you will test the options for processing these work packages.

5-1 Process the delivery due list for **your** shipping point.

5-1-1 Select from the sales orders due for shipping, the ones which meet the following criteria:

Shipping point: **Z0##**

Delivery creation date: from **the beginning of this week**
to **20 days from today**

Ship-to party: **T-S50A## and T-S50B##**



Use the menu path *Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Collective Processing of documents for shipment → Sales orders*

5-1-2 Which of the sales documents has been selected as part of the worklist?



The list of transactions for shipping will consist of orders that you have created in this unit, and potentially orders from the prior unit (if you completed all of the optional exercises).

5-1-3 Why does the last order that you created appear in the list twice?

5-1-4 Via which routes will the outbound deliveries be shipped?

5-1-5 Select only those lines which come from the two orders you created in the previous exercises for this unit.

Trigger processing of the selected worklist in the background.



Choose Create delivery in background to process the worklist.

- 5-1-6 Display the collective processing log.
Record the group number under which the system log is managed.
Group number: _____



Choose *Log for delivery creation*.

- 5-1-7 How many outbound deliveries have been created?
Number of outbound deliveries: _____

- 5-1-8 Determine the document numbers of the outbound deliveries.
- _____



Choose *Documents* to display the list of outbound delivery documents created.

- 5-2 Pick the deliveries you have just created using collective processing.
- 5-2-1 Select from the outbound deliveries for picking, all of those which meet the following criteria:

Shipping point: **Z0##**
Pick.date: from **Start of the week**
to **20 days from today**
Route: see delivery list exercise



Use the following menu path: *Logistics* → *Sales and distribution* → *Shipping and transportation* → *Picking* → *Create transfer order* → *Via Outb. Delivery Monitor*



Alternatively, you can enter the group number that has been defined by the system for the collective processing log for this delivery list.

- 5-2-2 Select those deliveries that were created during processing of the delivery list.

Pick these outbound deliveries without branching into the transfer orders and allow the system to write the picked quantities into the outbound delivery documents automatically.

Adopt picking quantity:

1 (include picking quantities in the delivery)



Choose *Create TO background* to execute collective picking. A pop-up window with ‘adopt pick quantity field’ will display.

- 5-2-3 Check the outbound delivery and determine whether picking has been carried out successfully.

Compare the delivery quantities with the picked quantities in one of your outbound deliveries. Is there a difference between the quantities?

- 5-2-4 Check the overall status of the outbound delivery.

Overall picking status: _____

Overall status of WM activities: _____

Overall status of goods issue: _____



Display the outbound delivery and then choose
→ *Goto* → *Header* → *Processing*

5-3 Post goods issue for your outbound deliveries using collective processing.

5-3-1 Select from the outbound deliveries ready to post, all of those which meet the following criteria:

Shipping point: **Z0##**

Planned goods movement date: from **Start of the week**

to **20 days from today**

Route: **R00025 and R00030**



Use the following menu path:*Logistics → Sales and distribution → Shipping and transportation → Post Goods Issue → Collective Processing via Outb. Delivery Monitor*

5-3-2 Select from the list those deliveries that were created during processing of the delivery list.
Post the goods issue.

5-3-3 View an outbound delivery and determine whether goods issue posting has been carried out successfully.

Check the overall status of the outbound delivery.

Overall status of goods issue: _____



Display the outbound delivery and then choose
→ *Goto → Header → Processing*

6-1 Process your billing due list.

6-1-1 Select from the outbound deliveries due for billing, the ones which meet the following criteria:

Billing date: from **the beginning of this week**
to **20 days from today**

Sales organization: **1000**
Shipping point: **Z0##**

Sold-to party: **T-S50A## and T-S50B##**



Use the following menu path: *Logistics*→*Sales and Distribution*→
Billing→*Billing document*→*Billing due list*

6-1-2 Select from the list those deliveries that were created during processing of the delivery list.

Test to see what the result of processing the billing due list would be.



Choose *Simulation*.

6-1-3 Compare two documents to see why the items from these outbound deliveries cannot be put together into one billing document.



Select two documents and choose *Split analysis*.

6-1-4 Go back into the billing due list and create the billing documents using collective processing.

6-1-5 Record the log number for collective processing.

Group number: _____

6-1-6 Review the log to see how many billing documents have been created.

Number: _____

Record the billing document numbers:

_____ _____ _____

6-1-7 Display one of the billing documents created, to see whether the sales process could be completed as requested. Use the document flow for the billing document.

Is the sales process completed?

Why?

6-2 Issue an invoice on the screen.

6-2-1 Review the invoice printout to determine whether the delivery conditions and payment conditions are correct on the form.

Choose output type RD00 and printer LP01.

Solutions



Unit: Sales From Stock - Available

- **Sales Order Processing**
- **Inventory Sourcing**

1-1-1 To create a sales order: **Logistics → Sales and distribution → Sales → Order → Create**
Choose **Save**.

The document number is assigned internally by the system.

1-2-1 Rush order and cash sale are examples of order types used for sales from a plant.

1-2-2 Free of charge delivery document is an example of an order type used to send free samples.

2-1-1 Pricing, delivery scheduling, transfer of requirements, availability check, texts, output, credit check, update in Sales Information System are some functions influenced by the document type

3-1-1 Item 10: **1000**
Item 20: **1000**

3-1-2 Item 10: **Z0##**
Item 20: **Z0##**

3-1-3 Item 10: **R00030**
Item 20: **R00030**

3-1-4 Place the cursor on the field and choose F1. The shipping point is the organizational unit, whose employees are responsible for the complete shipping processing.

3-1-5 The route establishes the path and the method of transportation a delivery item takes to reach the customer location. The route is also an important criteria for the selection of orders for shipping worklists.

- 3-2-1 1. Customer-material info record (the sold-to party)
 2. Ship-to party master record
 (Sales area data, shipping view)
 3. Material master record
 (Sales and distribution view: Sorg 1)
- 3-2-2 There is no delivering plant
 Exception: If a default value is entered manually in the *delivering plant* field in the header of the sales document, a default value will be proposed for each line item.
- 3-2-3 Ship-to party master record determines the plant.
- 3-3-1 and 3-3-2:
 Delivering plant: **1000**
 Shipping condition: **##+50 (for example, 70 for group 20)**
 Loading group: **0003**
- 4-1-1 To create a sales order:
Logistics → Sales and distribution → Sales → Order → Create
 Choose **Save**.
 The document number is assigned internally by the system.
- 4-1-2 To find the shipping dates:
Logistics → Sales and distribution → Sales → Order → Change
→ Select item 10 → Schedule line for item → Select confirmed schedule line → Shipping details
- 4-1-3 To ensure delivery, shipping processing starts with the material availability date.
- 4-1-4 Preparation (picking and packing) and transportation planning must be completed so that loading can begin on time.
- 4-2-1 Depends on the results of scheduling. If you cannot create delivery, it means that scheduling in the order had the result that shipping processing must begin in several days and not today. If you can create a delivery, the material availability date is today.
- 4-2-2 Yes. You must begin shipping processing on the material availability date, so that the goods arrive at the customer's location on the confirmed delivery date that was determined during delivery and transportation scheduling.

Solutions



Unit: Sales From Stock - Available

- **Shipping**
- **Billing document**

- 5-1-1 Use the menu path
Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Collective Processing of documents for shipment → Sales orders
- 5-1-2 Both orders from exercises 1-1-1 and 4-1-1. See the two sales orders which you have created in this course.
- 5-1-3 As they have different ship-to parties (and routes), the two items in the order must be processed further using two separate outbound deliveries.

5-1-4 **R00025** and **R00030**

- 5-1-5 Select the relevant lines and choose **Background**.
- 5-1-6 The group number is displayed in the log. Choose **Log for delivery creation**
- 5-1-7 Three outbound deliveries have been created.
- 5-1-8 Choose **Documents** and record the document numbers.

5-2-1 *Logistics → Sales and distribution → Shipping and transportation → Picking → Create transfer order → Via Outb. Delivery Monitor → Sales orders*

Routes: **R00025** and **R00030**

- 5-2-2 Choose **Create TO in background**.
- 5-2-3 *Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Display → Choose Picking*
- 5-2-4 Overall picking status: **C fully picked**
Overall status of WM activities: **C WM-TO completed**
Overall goods issue status: **A not yet started**

5-3-1 Use the following menu path:
Logistics → Sales and distribution → Shipping and transportation → Post Goods Issue → Collective Processing via Outb. Delivery Monitor

5-3-2 Select the relevant outbound deliveries and choose ***Post goods issue.***

5-3-3 Overall status of goods issue: **C completed**

6-1-1 ***Logistics → Sales and distribution → Billing → Billing document → Billing due list***

6-1-2 Choose ***Simulation.***

6-1-3 Select two documents and choose ***Split analysis.*** The following document information are examples of fields that can affect a billing split:

- Sold-to party and payer
- Reference and assignment number
- Sales tax – identification number
- Incoterms part 1 and part 2

6-1-4 Go back to the Process billing due list screen and choose ***Save.***

6-1-5 Record the group number from the log.

6-1-6 Three outbound deliveries have been created. Choose ***Documents*** to view the document numbers.

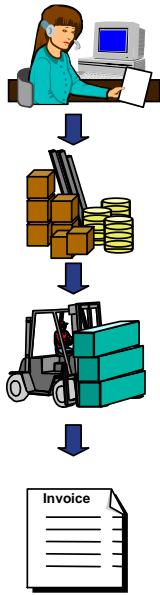
6-1-7 ***Logistics → Sales and distribution → Billing → Billing document → Display***
Choose ***Display document flow.***

The sales and distribution portion of the process is now completed because the accounting documents were created automatically by the system.
Clearing the accounting documents is part of the process in financial accounting.

6-2-1 ***Logistics → Sales and distribution → Billing → Billing document → Display***
Billing document → Issue output to → Screen
Output type: RD00 → Execute

Payment conditions and delivery conditions are shown above the items in the invoice.

Contents:



Sales order processing

- Order entry with materials with insufficient stock

Inventory Sourcing

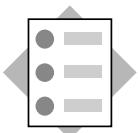
- Transfer of requirements and availability check
- Backorder processing

Shipping

- Partial Deliveries
- Shipment

Billing

- Settlement of shipment costs
- Transfer data from billing to accounting

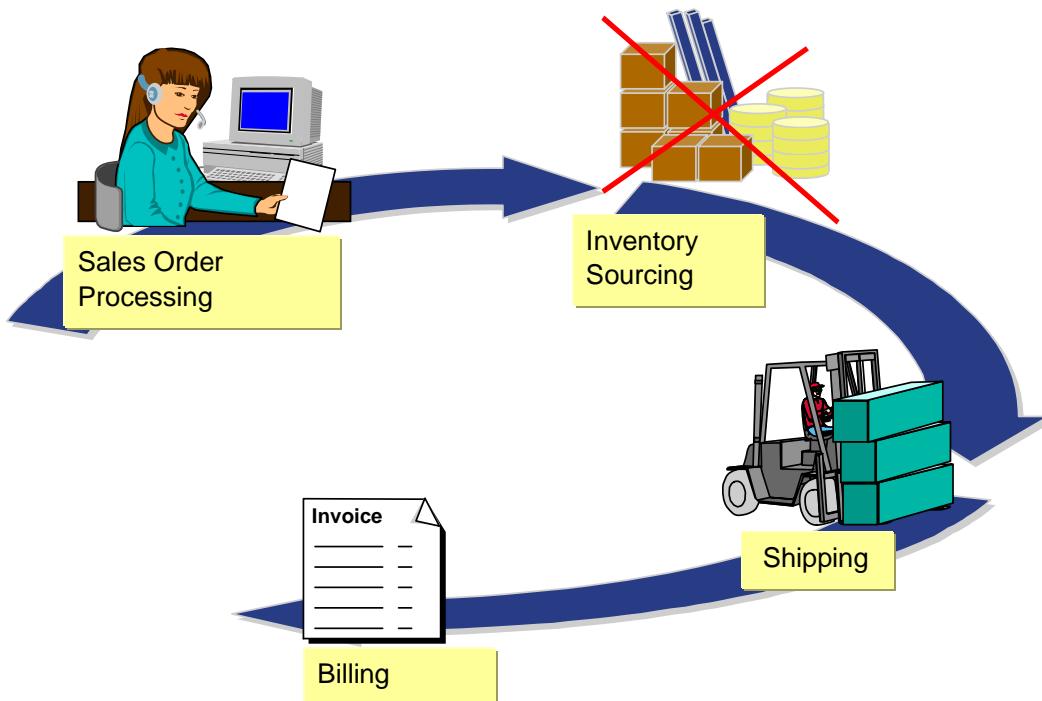


At the conclusion of this unit, you will be able to:

- **Create sales orders for different stock situations**
- **Process deliveries with partial delivery quantities**
- **Explain how deliveries are shipped using transportation functionality**
- **Describe how shipment costs are billed to the customer**
- **Explain how financial information is transferred from the billing document into the accounting document**

Overview Diagram of Processes without Stock

SAP

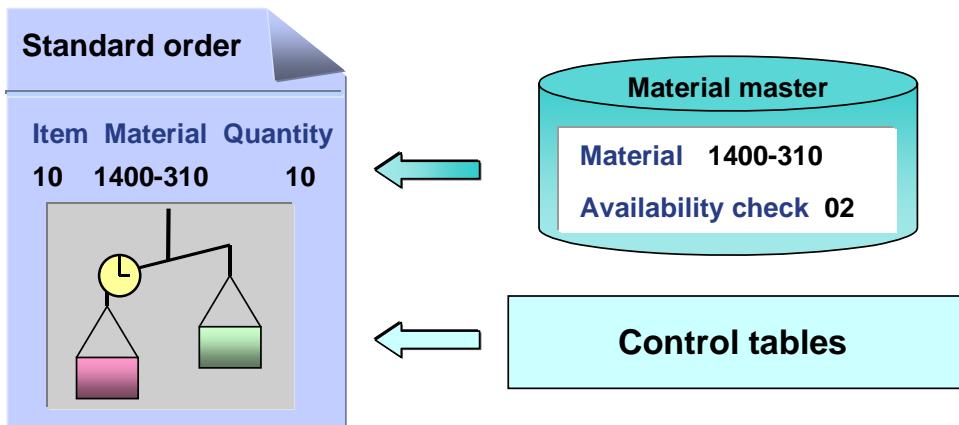


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- In sales and distribution, materials have to be procured for sales order processing. For this reason, an availability check is carried out by the system. This may lead to a material shortage from stock, if there is either too little or no material available.



- You want to create orders for materials, for which there is insufficient stock
- To be able to do this, you need to check the available stock and may require information on the earliest possible delivery dates
- In some cases, the customer also allows partial delivery, if they cannot deliver the full amount.
- You want to put together several outbound deliveries and load them onto one lorry, to transport the materials to customers
- Shipment costs occur, which you bill to the customer
- You want to check which accounts have been posted in the account document belonging to the billing document



An availability check occurs during sales order processing if:

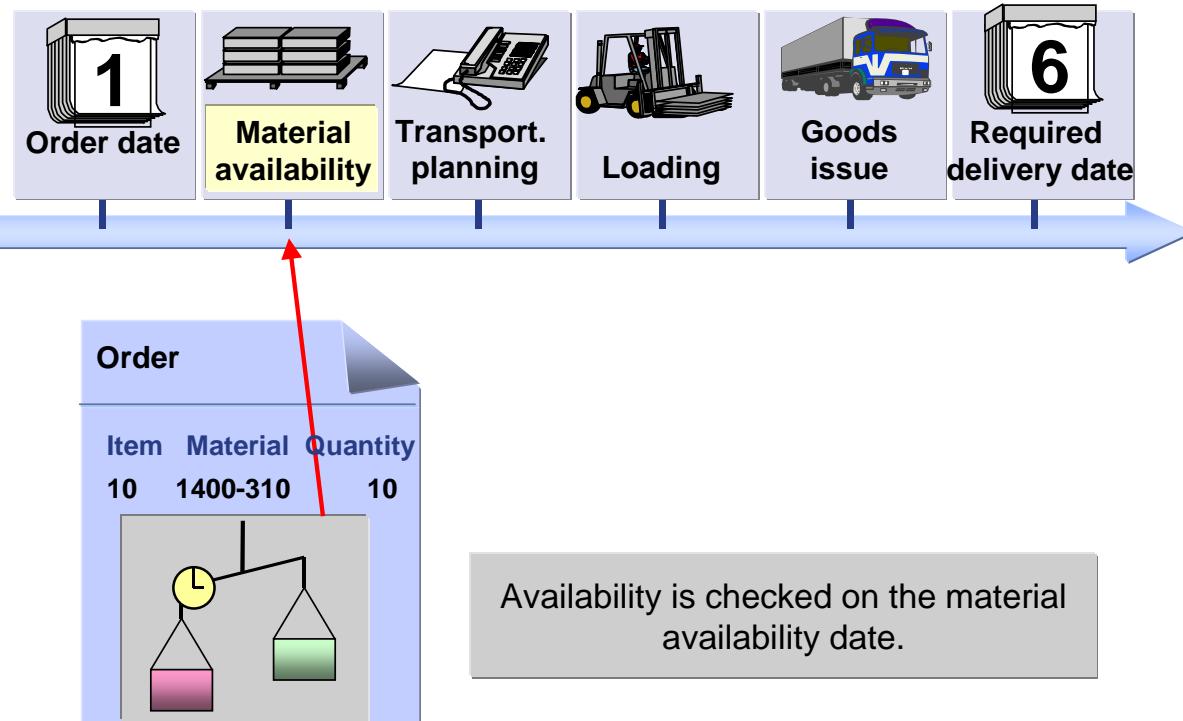
- The material requires an inventory check
- The availability check is set in Customizing for this transaction

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- On the Sales and Distribution tab page in the material master you can: enter in Gen./Plant in the availability check field, which and/or what type of availability check should be carried out for this material during order processing.
- There are also various tables in Customizing, on which the availability check is also dependent.

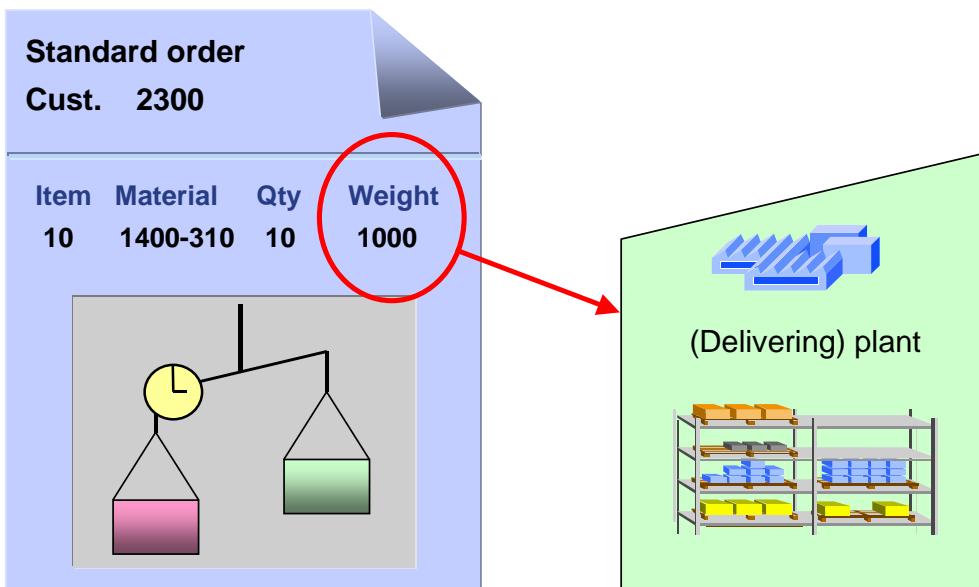
Material Availability Date Check

SAP



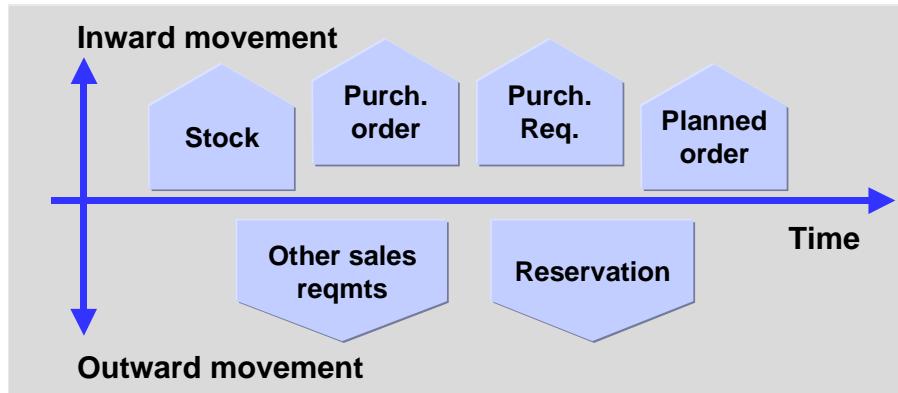
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- The material availability date is determined from delivery scheduling. On this date, enough material has to be available in time for delivery to the customer for their requested delivery date.
- The system calculates this date, working backwards from the customer's requested delivery date.
- The system calculates the time required for picking, packing, loading and transporting the goods.



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- The system accesses information for proposing the standard delivering plant in the following order :
 1. Customer-material info
 2. Ship-to party customer master record
 3. Material master record
- If you enter the delivering plant manually during order processing, your entry will overwrite the default value.
- In customer-material info, you can maintain the value proposal for a specific material for a customer.
- You can find the delivering plant in the material master on the Sales and Distribution tab page: Sales Org. 1. Delivering plant
- You can find the delivering plant in the customer master on the Shipping tab page:

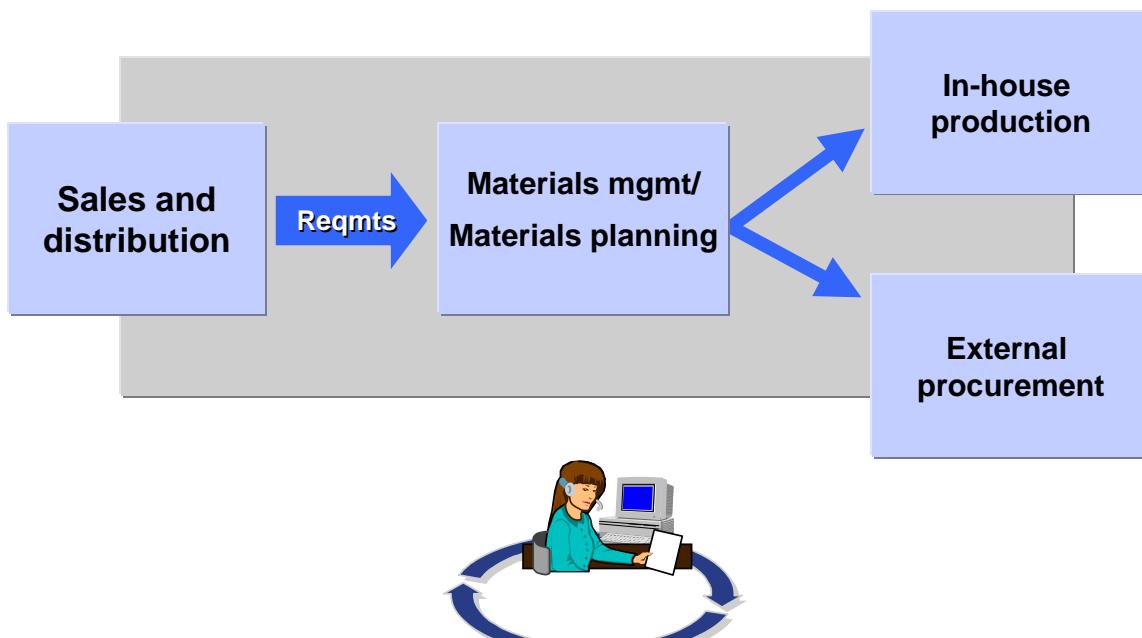


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- In Customizing, you can configure which elements are included in an availability check, according to the transaction you are using. In this way, you define which types of stock (for example, safety, stock in transfer or stock in quality inspection), which inward movements (for example, purchase or production orders) and which outward movements (for example, sales orders, reservations from Materials Management) should be included in the check.

Transfer of Requirements

SAP

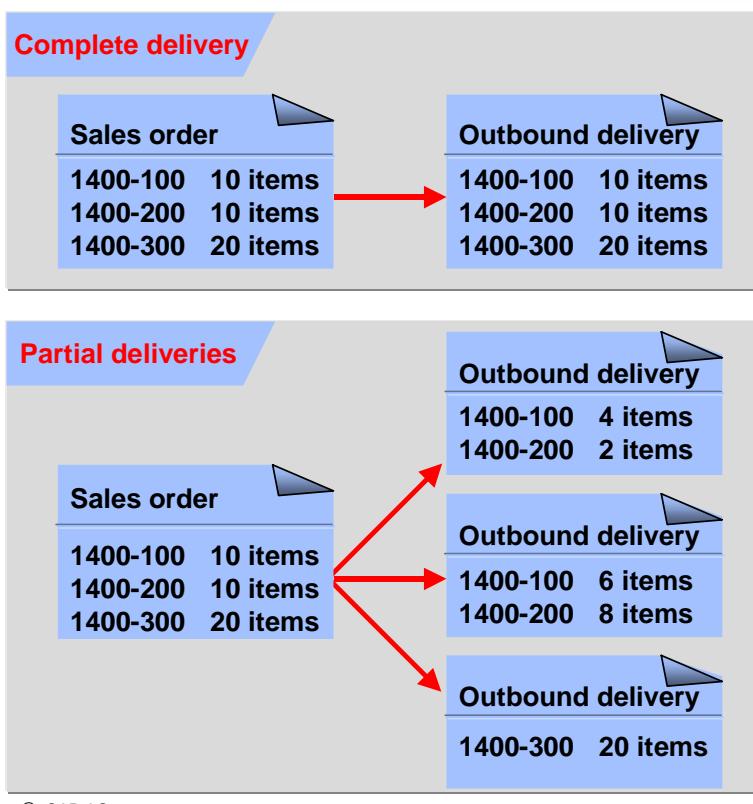


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- Communication between sales and distribution and procurement is carried out via requirements.
- The transfer of requirements type can influence the availability check.
- The employee responsible for materials planning receives information about sales orders in the system and the quantities that SD needs in order to deliver these orders.
- The material for the order can come from in-house production or external procurement.
- If there is insufficient material available, purchase orders can be made via materials planning.

Complete and Partial Deliveries

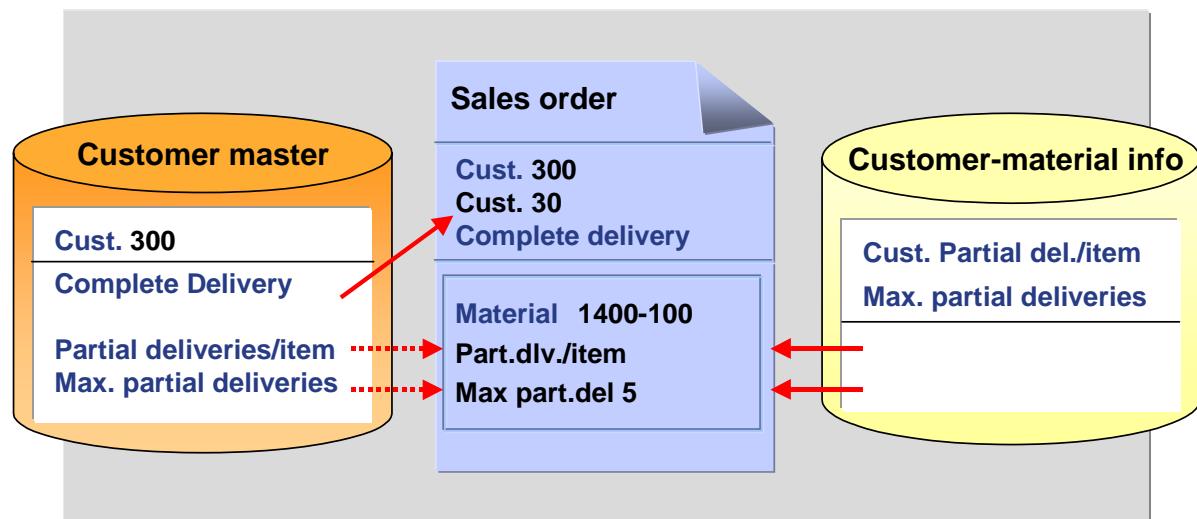
SAP



- Any agreements you made with the customer about deliveries also affect the result of the availability check.
- Depending on the agreements for partial/complete delivery in the customer sales order, you can deliver an order in one complete delivery or several partial deliveries.
- In a complete delivery, all items with the order quantities are delivered.
- For partial deliveries you can distribute a order with items or quantities from several deliveries.

Partial Delivery Agreement

SAP

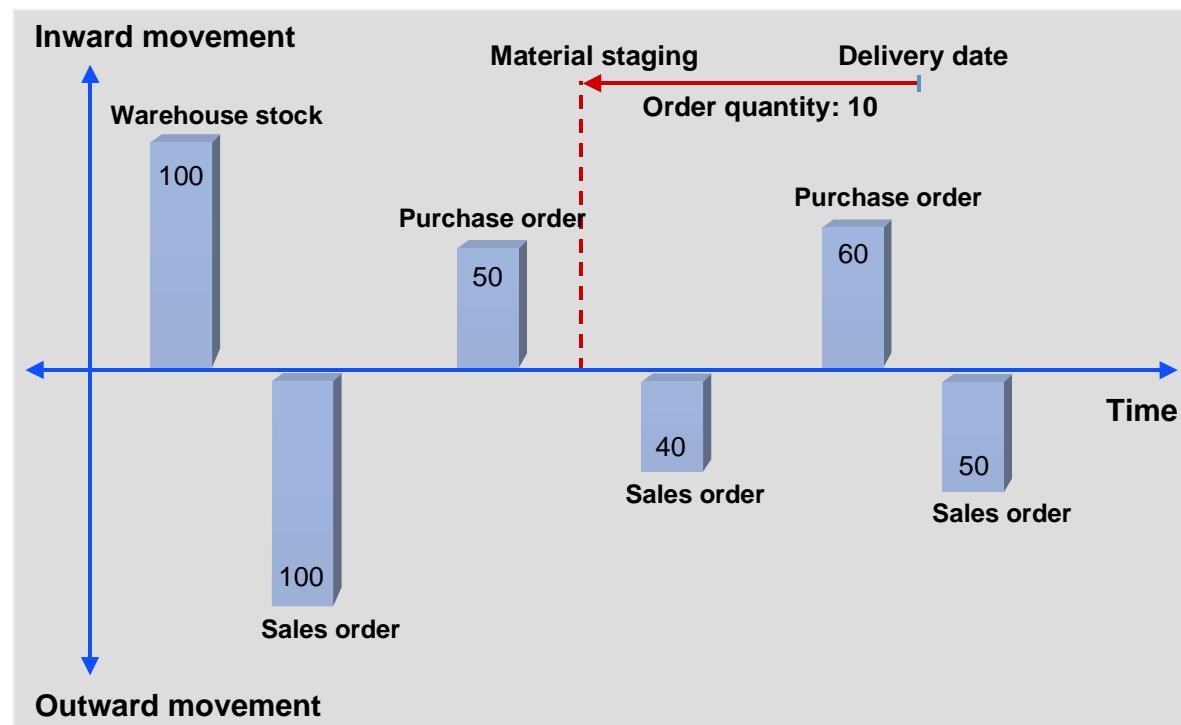


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- The indicator for controlling complete/partial deliveries is proposed from the customer master record. The proposal for the item level comes from the customer-material info, if a customer and material agreement has been maintained there. These indicators can be manually changed during sales order entry.
- The customer may require, for example, a complete delivery which means that all the items in the sales order should be delivered together. If the customer agrees to a partial delivery, the order can be met in several deliveries.
- If you choose "Complete delivery", you can determine that all the items in a whole order must be delivered together. At item level, you can also decide whether you can split the delivery quantities.
- The following partial delivery agreements exist:
 - _ Partial delivery permitted
 - A Enter a delivery with quantity not equal to 0
 - B Only create a delivery (also with quantity = 0)
 - C Only complete delivery can be carried out
 - D Preferred subsequent delivery

Case 1: Confirmation on Required Delivery Date

SAP

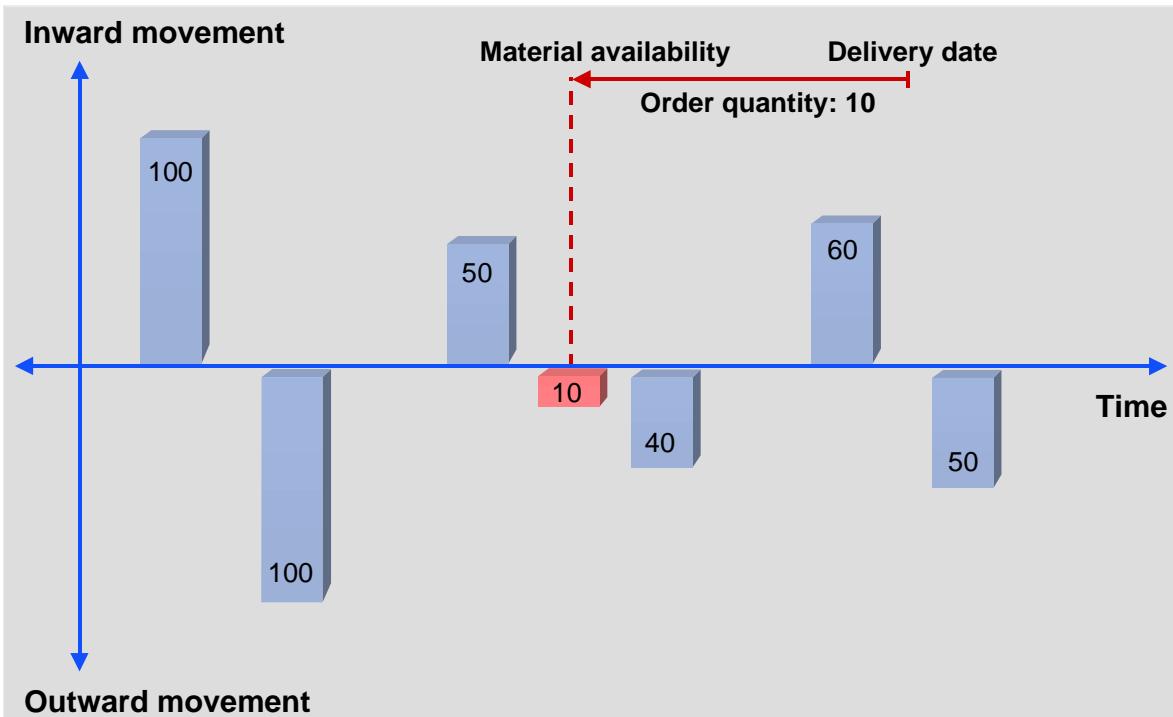


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- The system uses delivery scheduling to check whether the goods will be available for the material availability date.
- The availability check includes:
 - Current stock
 - Planned inward movements (such as purchase orders, purchase requisitions, planned orders)
 - Planned outward movements (such as existing sales orders, deliveries).
- In case 1, the situation regarding outward movements is as follows:
The existing outward movements are:
 - Stock: 100 pieces
 - Existing purchase orders with quantities of 50 and 60 units
- The following future outward movements also already exist:
 - Existing sales orders with quantities of 100, 40 and 50 units.
- In this outward situation you now enter another sales order for 10 units.
The system carries out delivery scheduling (backward scheduling) based on the customer's requested delivery date and determines the material availability date. It then runs an availability check for this date.

Result for Case 1: Confirmation Required Delivery Date

SAP

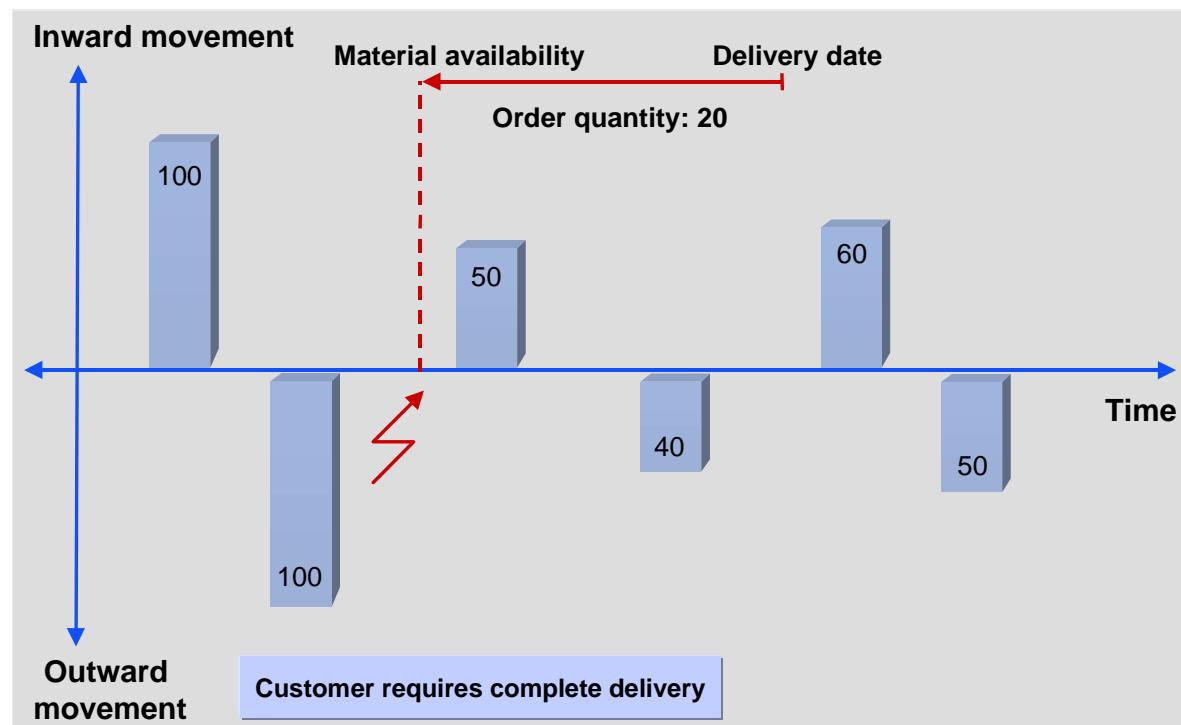


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- The availability check shows that the system can confirm the 10 units for the requested delivery date.

Case 2: Confirmation for a Later Date

SAP

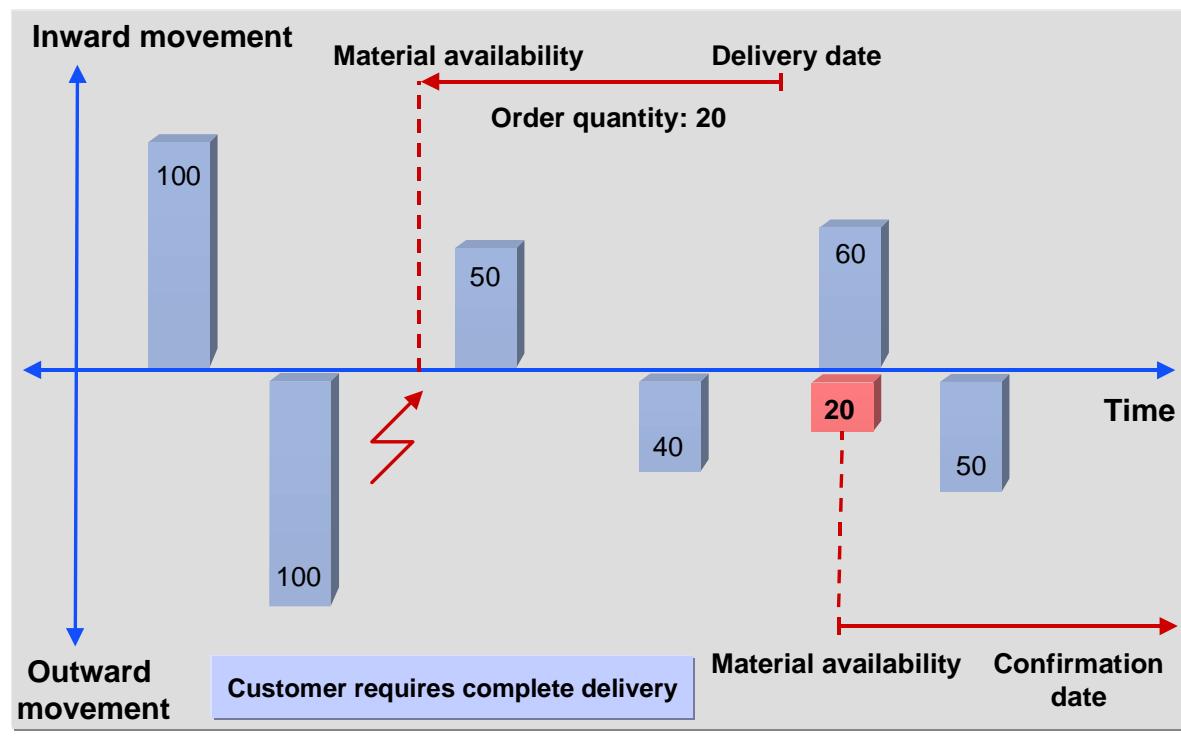


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- The original situation in Case 2 is the same as the first:
The existing outward movements are:
 - Stock: 100 units
 - Existing purchase orders with quantities of 50 and 60 units
- The following future outward movements also already exist:
 - Existing sales orders with quantities of 100, 40 and 50 units.
- In this case, however, the customer requires a "complete delivery"
- In this outward situation you now enter another sales order for 20 units.
The system carries out delivery scheduling (backward scheduling) based on the customer's requested delivery date and determines the material availability date. It then runs an availability check for this date.

Result for Case 2: Confirmation for a Later Date

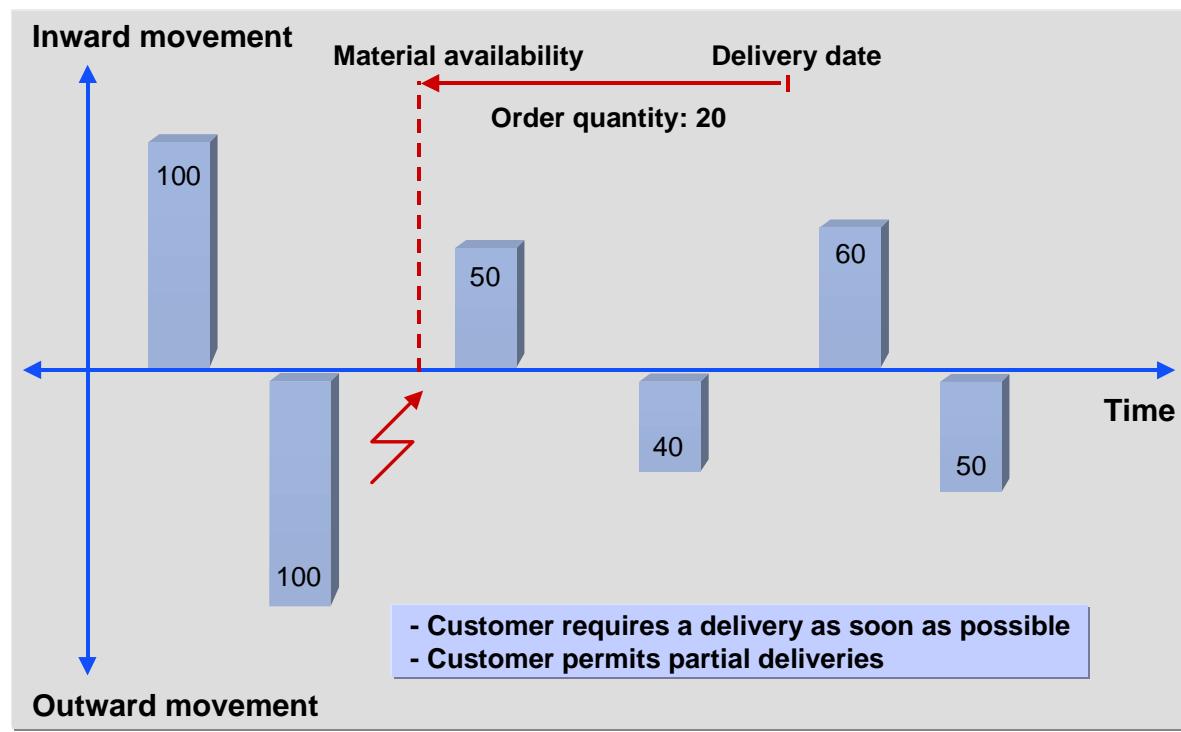
SAP



- In case of stock shortage, the system uses the availability check and delivery scheduling to determine the next possible date on which the goods can be confirmed for the customer.
- Due to the complete delivery agreement, the quantities cannot be split up.
- You have to confirm the 20 units for a later date.
- Based on the materials availability date, the system uses delivery scheduling (forward scheduling) to calculate the confirmation date for the 20 units.

Case 3: Partial Deliveries

SAP

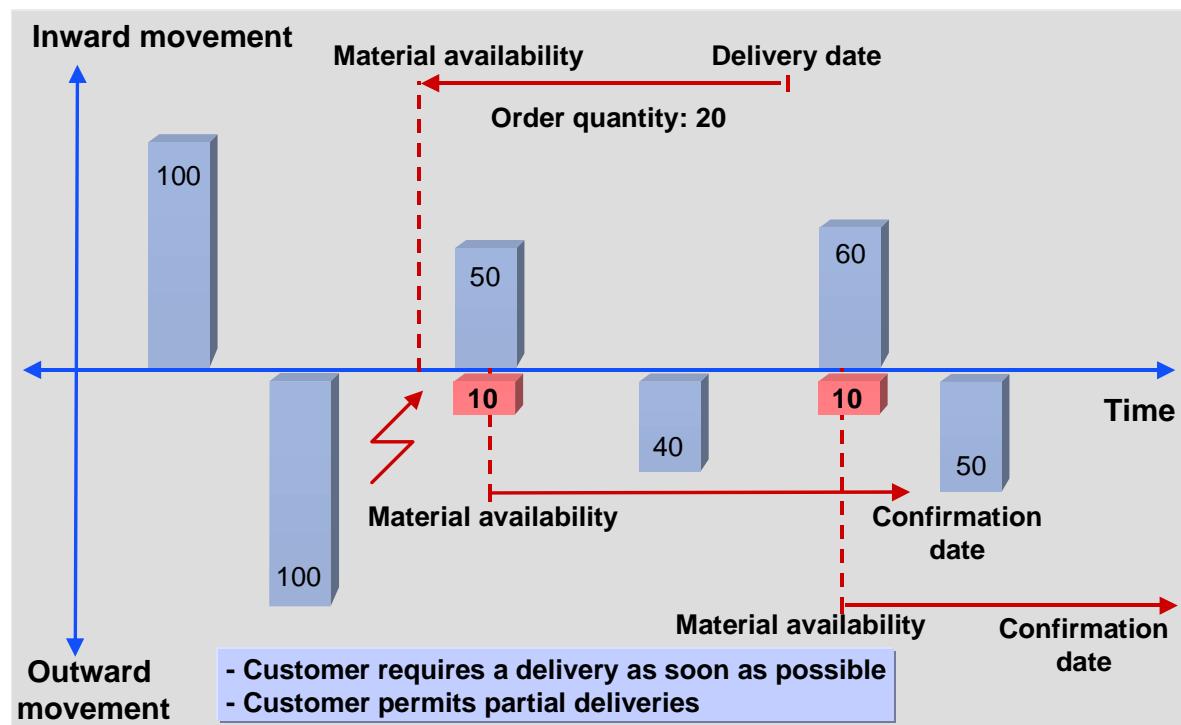


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- If the customer and type of sales document allow it, the required sales order quantity can also be split into several partial deliveries.
- The situation in case 3 is the same as for 1 and 2:
The existing outward movements are:
 - Stock: 100 units
 - Existing purchase orders with quantities of 50 and 60 units
- The following future outward movements also already exist:
 - Existing sales orders with quantities of 100, 40 and 50 units.
- In case 3, however, the customer needs the goods as soon as possible and allows you to split the delivery quantities up in partial deliveries, if necessary.
- In this outward situation you now enter another sales order for 20 units.
The system carries out delivery scheduling (backward scheduling) based on the customer's requested delivery date and determines the material availability date. It then runs an availability check for this date.

Result for Case 3: Partial Deliveries

SAP

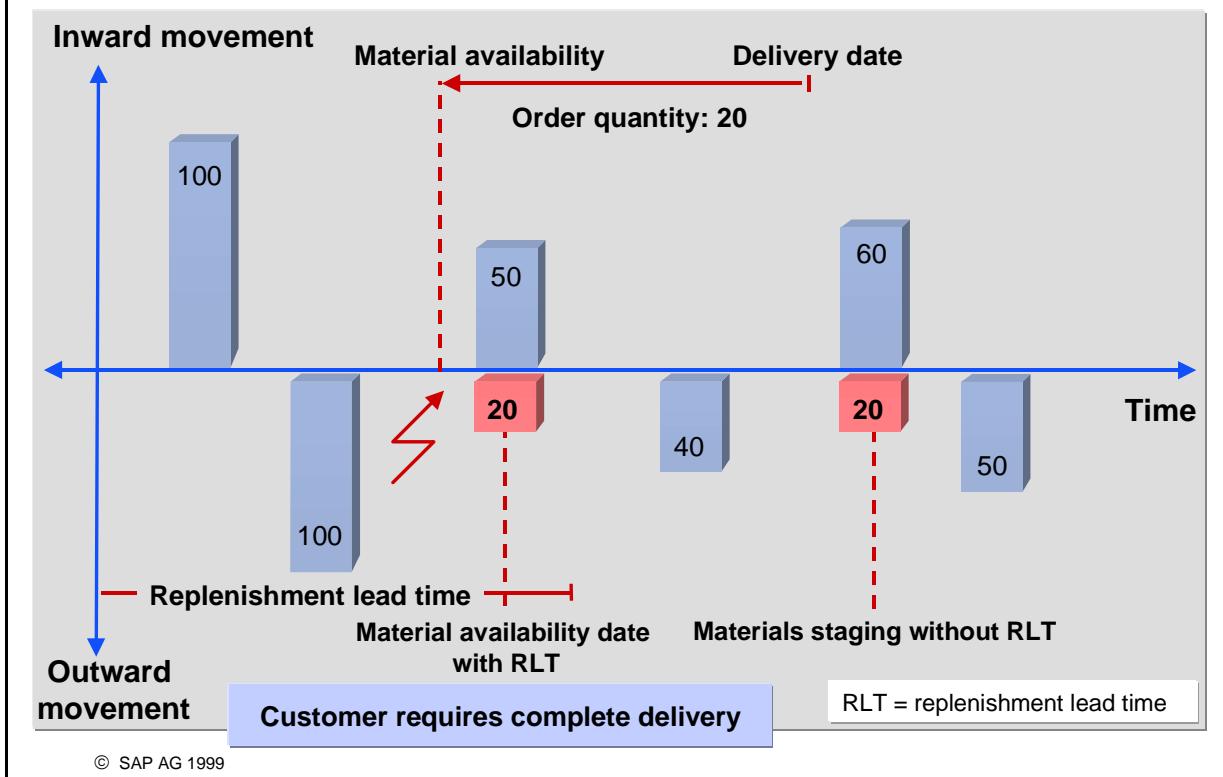


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- When there is not enough stock, the system uses the availability situation and delivery scheduling to determine the next possible date for which the goods can be confirmed to the customer.
- The "partial deliveries permitted" agreement means that the quantity can be split up.
- You can confirm the 20 units for two later dates, each with 10 units.
- Using the material availability date, the system uses delivery scheduling (forward scheduling) to calculate two partial deliveries, each with 10 units.

Case 4: Check with Replenishment Lead Time

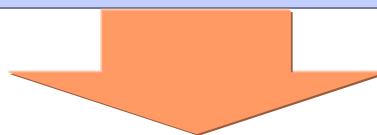
 SAP



- You can take into account all inward and outward movements. It is recommended, however, that you only implement an availability check at the end of the replenishment lead time.
 - The replenishment lead time can be specified for each material. For example, trading goods: planned delivery time + processing time for goods receipt,
 Finished goods: in-house production time
 - The system assumes that the material will be available at the end of the replenishment lead time by the latest.
 - The availability check is only run until the end of the replenishment lead time.
 - If you check availability in case 4 without including replenishment lead time, the result is the same as for case 2. The customer requires a complete delivery. You cannot make 20 units available until the same date on which the last purchase order for 60 units arrives (inward movement).
 - However, if the system checks availability using the replenishment lead time, you can make 20 units available for the date on which the purchase order with 50 units arrives (inward movement). Only the inward and outward movements that take place within the replenishment lead time are included in this check.

An order item is backordered if:

- the quantity of an order item is not totally confirmed
- the required delivery date for an order item can not be kept



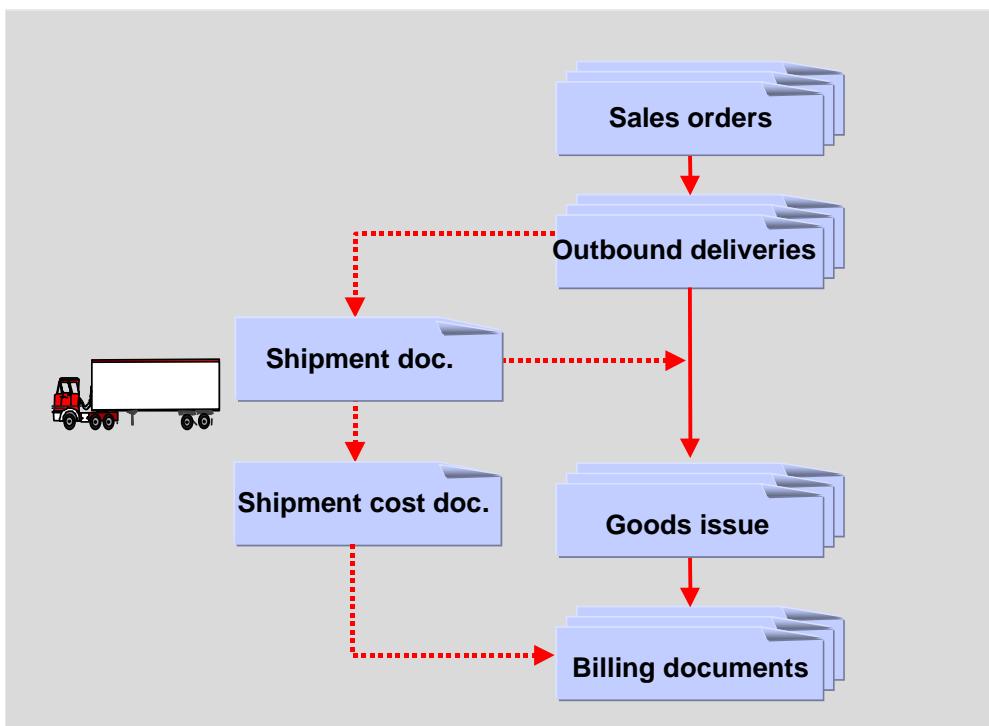
Backorder Processing

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- There are two types of backorder processing:
- Manual with backorder processing
 - You can use backorder processing to list sales documents for materials and to process them manually with reference to the confirmation. This means that ATP quantities can be reassigned and any shortfall can be cleared.
- Via rescheduling
 - You can use the delivery priority (proposed from the customer master record for the sales order) as a sorting criteria in automatic rescheduling.

Document Flow with Outgoing Shipment

SAP

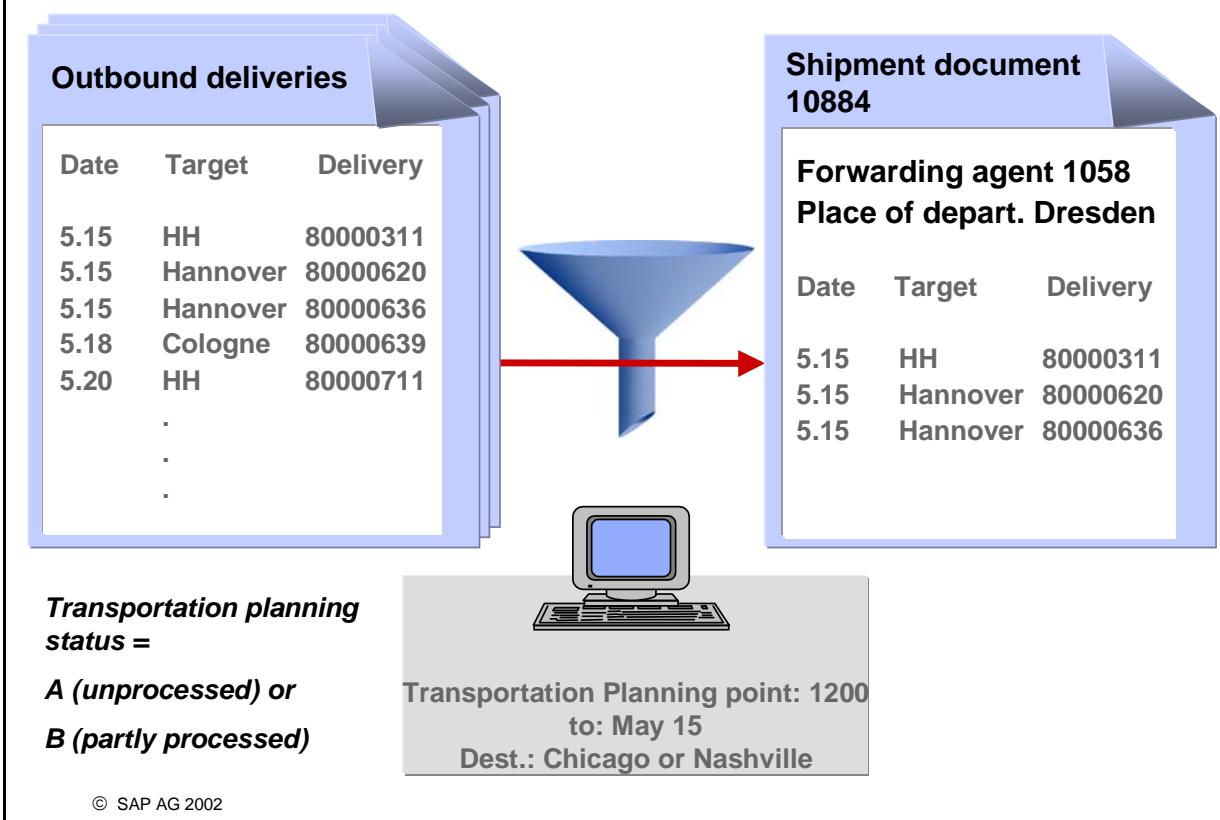


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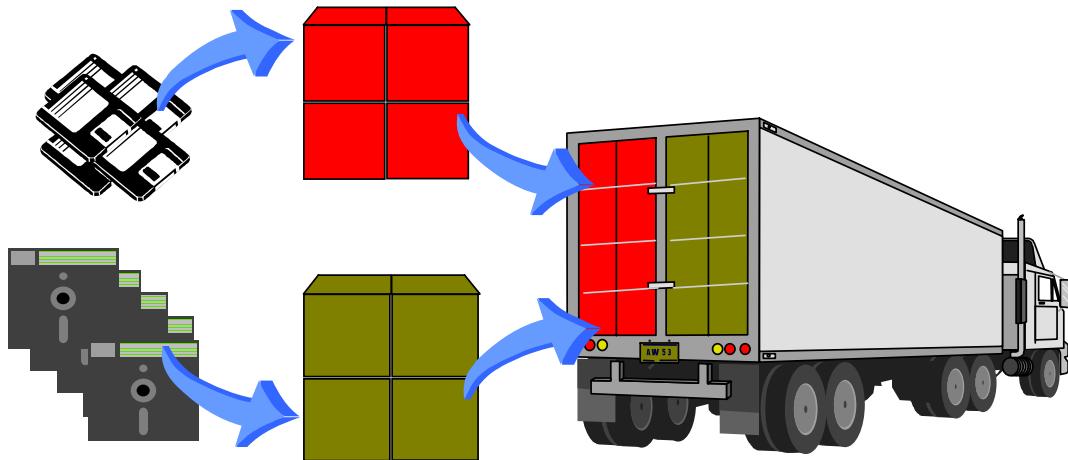
- The shipment function is optional.
- You can use it to combine deliveries with the same transportation requirements, such as forwarding agent, destination, route or means of transport.
- Normally, you create a shipment before you post goods issue.
- The settlement of shipment costs from the shipment is also optional.

Creating Shipment Documents

SAP



- The system uses the „Create shipment“ function to determine the deliveries due for transportation and creates the shipments required.
- The individual deliveries can be assigned to the shipments manually. The sequence of the deliveries within a shipment is determined automatically from the sequence in which they are listed.

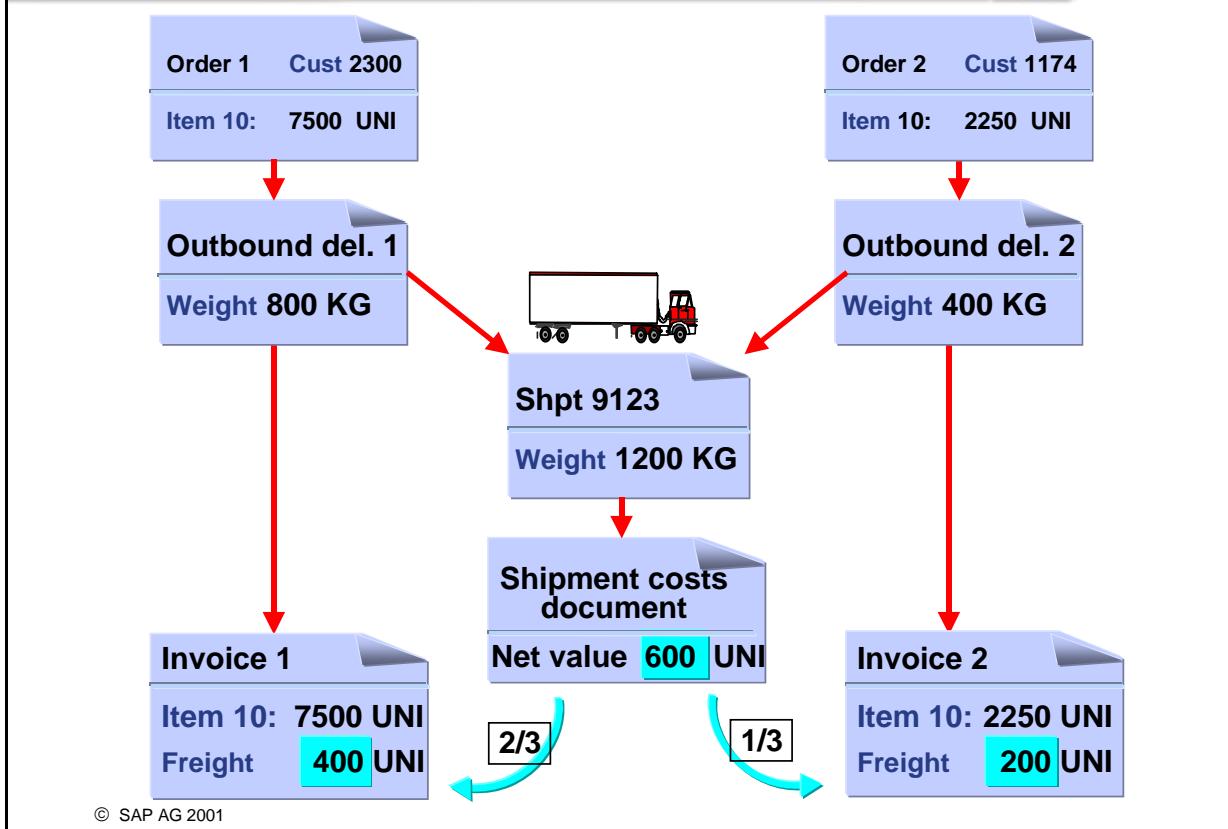


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- At the time of shipment, items which were not already packed in the delivery, can be packed in shipping units using shipping materials. The functionality used here is basically the same as for loading in the delivery. However, items cannot be generated or entered manually for inventory management/billing.
- Packed items are assigned to the required means of transport (e.g., trucks).
- Shipping units from the delivery are copied and can no longer be changed.
- Unlike packing in the delivery, packing in the shipment can be carried out for several deliveries.

Billing Shipment Costs to the Customer

SAP



- You can invoice the customer for shipment costs, based on effective shipment costs, that have been calculated in the transportation and shipment cost processing areas for settlement with the forwarding agent. Shipment costs appear as a separate entry in the customer billing document.

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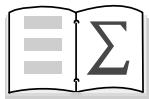
Billing document	
Customer 2300	
Sales org	1000
Dist. channel	10
Division	1000
Price	100
Freight surcharge	20
Output tax	12
Final amount	132



Accounting document	
Company code: 1000	
Cust. 2300	
132	<u>Sls invoice revenues</u>
	100
	<u>Freight revenues</u>
	20
	<u>Output tax</u>
	12

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- The system transfers billing document data in invoices, credit and debit memos to financial accounting and posts this to the determined accounts.
- You can set account determination to be dependent on various different criteria in Customizing, so that the corresponding accounts can be determined. The following criteria are defined in the standard system:
 - Chart of accounts
 - Sales organization
 - Payer's account assignment group(it is possible to divide the customers, for example, into domestic customers and foreign customers)
 - Material account assignment group(it is possible to divide the materials, for example, into services and trading goods)
 - Account key (it is possible to divide this up into the different price, surplus and discount elements)
- Setting account determination requires agreement from financial accounting and cost accounting, for the reasons mentioned above.



You are now able to:

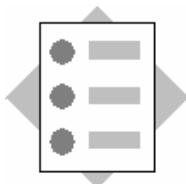
- Create sales orders for different stock situations
- Process deliveries with partial delivery quantities
- Explain how deliveries are shipped using transportation functionality
- Describe how shipment costs are billed to the customer
- Explain how financial information is transferred from the billing document into the accounting document

Exercises



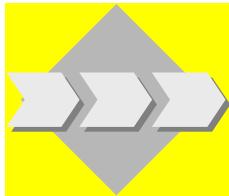
Unit: Sales from Stock - Shortage

- Sales order processing
- Inventory sourcing



At the conclusion of these exercises, you will be able to:

- Process sales orders for which there is a shortage of stock
- Check available stock



You began marketing a new product two months ago. Demand for this product has been greater than originally anticipated, resulting in stock shortages.

1-1 Is the implementation of an availability check dependent on the material?

1-1-1 You want to determine whether an availability check takes place for the material with the number **T-AS5##** during order entry in plant **1000**.



Display the material master. On the *Sales and Distribution Sales OrgData 1* tab page: enter in the *availability check* field, which and/or what type of availability check should be carried out for this material during order processing.

2-1 You want to determine for which delivering plant the availability check takes place during order entry.

2-1-1 Check which delivering plant is proposed during order entry for sales organization **1000**, distribution channel **12** from material master **T-AS5##**.



Display the material master. On the *Sales and Distribution Sales OrgData 1* tab page: in the *Delivering plant* field, the delivering plant, proposed during order entry from the material master, is entered.

2-1-2 Check which delivering plant is proposed during order entry for sales organization **1000**, distribution channel **12**, division **00** from material master **T-S50B##**.



Display the customer master. In the *Delivering plant* field on the *Shipping* tab page, enter the delivering plant, proposed during order entry from the customer master.

2-1-3 In what sequence is the master data accessed during order processing for the plant proposal?

2-1-4 Can the availability check be carried out in another plant to the one proposed?

3-1 You receive a purchase order.

3-1-1 Create a **standard order** based on the purchase order.

<u>Purchase order</u>	
Customer:	T-S50B##
Purchase order number:	7-311
Required delivery date:	in 5 days
<u>Material</u>	<u>Quantity</u>
T-AS5##	10

3-2-1 As there is not enough material available for the required delivery date, the system remains on the availability control screen during order entry.



If you have already left the availability control screen, you can call it up again by selecting *Check item availability*.

For which plant is availability checked?

3-2-2 How many units can be confirmed for the required delivery date?

3-2-3 How long is it until the complete amount must be confirmed?

3-2-4 Why can the complete quantity not be confirmed on this date?

3-2-5 You decide to confirm that a complete delivery be made to the customer at a later date.

3-3-1 Display the schedule lines for item 10. Which lines with schedule lines are displayed?

3-4-1 Save the order and record the order number.

4-1 You receive another purchase order.

4-1-1 Create another **standard order** based on the purchase order.

Purchase order	
Customer:	T-S50B##
Purchase order number:	7-411
Required delivery date:	in 5 days
<u>Material</u>	<u>Quantity</u>
T-AS5## 15	

- 4-1-2 As there is not enough material available again for the required delivery date, the system remains on the availability control screen during order entry.



If you have already left the availability control screen, you can call it up again by selecting *Check item availability*.

You know that the material can also taken from plant 1400 in Stuttgart. You therefore want to try and ensure that the material is available there. Check availability for plant 1400.



To check availability for another plant, choose *Other plants* on the availability control screen.

- 4-1-3 How many units can be confirmed from plant 1400 for the required delivery date ?
-

- 4-1-3 Why can the full amount be confirmed from plant 1400 on the required delivery date?
-

- 4-1-4 You decide to deliver the materials to the customer from plant 1400 and make the full delivery from plant 1400. Save the order and note the number.
-

5-1 You want to display the scope of the check from the previous order.

5-1-1 You want to know if the previous order also took into consideration purchase orders entered in the system during the availability check. Display the previous order and check the elements for inward/outward movements, that have been taken into consideration during the availability check.



You can display the scope of the check in the sales order from either the availability control screen or the availability overview screen. Choose *Scope of check*.

5-1-2 You also want to determine whether the replenishment lead time has been taken into account during the availability check.

6-1 You receive another purchase order for another material.

6-1-1 You want to gain an overview, first of all, of the actual stock and requirements situation for the other material. Display the current stock and requirements list for material **T-AS4##**. Note down how many units are in stock in plant **1000**.



Inventory management is carried out in materials management. Choose the following path for this: *Logistics → Materials management → Inventory management → Environment → Stock → Stock/requirements list*

6-2-1 Create a **standard order** based on the purchase order.

<u>Purchase order</u>	
Customer:	T-S50A##
Purchase order number:	7-621
Required delivery date:	in 10 days
<u>Material</u>	<u>Quantity</u>
T-AS4##	25

Save the order and record the order number.

6-3-1 You want to gain an overview of the actual stock and requirements situation for the this material in plant **1000**. Display the current stock and requirements list for material **T-AS4##**. Record how many units were required in the sales order.

6-3-2 On what date was the requirement transferred? Which date in the sales order corresponds to this date?

*7-1 When are backorders created?

7-1-1 When is a backorder created for an order item?

7-1-2 What are the two different types of backorders?

7-1-3 Which field from the customer master can be used as a sorting criterion for rescheduling?

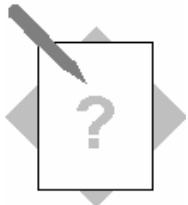
8-1 Questions on the availability check

8-1-1 Why can the result of an availability check in the sales order dependent on a partial delivery agreement differ from a normal availability check?

8-1-2 Why is the completion of delivery scheduling a prerequisite for the availability check in the sales order.

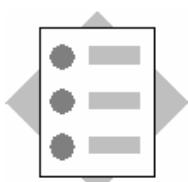
8-1-3 Why is delivery scheduling carried out after the availability check, if the item cannot be confirmed for the required delivery date.

Exercises



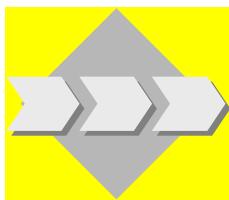
Unit: Sales from Stock - Shortage

- Shipping
- Billing



At the conclusion of these exercises, you will be able to:

- Edit partial deliveries
- Describe transportation processing
- Carry out account determination for a billing document in the accounting document



Although you are able to deliver the complete quantity on the requested delivery date, the customer only wants to receive part of the delivery at this point.

As there are other customer outbound deliveries to make on the day that the delivery is due, which are on route to this particular customer, you can put several outbound deliveries together in one shipment. The shipment costs can then be divided accordingly amongst the individual customers.

After the process has been completed and the invoices are created, you want to ensure that the right accounts have been posted in accounting.

9-1 A sales order should be partially delivered.

9-1-1 Display the standard order from the last exercise with the purchase order number 6-2-1 on the screen. Determine whether the order could be partially delivered.

Which agreement referring to a complete delivery can be seen in the order header?



You can find the field *Complete delivery* on the *Shipping tab page*.

9-1-2 What master data can be found in the order header for the indicator proposal for a *complete delivery*?

9-1-3 Do you have the option of distributing individual order items (with the corresponding item order quantity) to different deliveries, if the field *Complete delivery* is not marked in the order header?

9-1-4 Do you have the option of distributing the full amount of order items to different deliveries, if the field *Complete delivery* is not marked in the order header?

- 9-1-5 What agreements referring to partial deliveries can be found in item 10 of the order.
-



You can find the field *PartDel/Item* for the order item on the *Shipping* tab page.

- 9-1-6 What master data can be found in the indicator proposal for partial deliveries in the order item.
-



To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**. Change the quantity to be delivered to 10 units.

Save the outbound delivery and note down the order number.

10-1 You want to examine possible methods of transport for the delivery.

10-1-1 Check whether the outbound delivery you have already created (from exercise 9-2-1) can be processed for transport. What is the transportation planning status of the delivery?



Display the outbound delivery on the screen. On the *Transport* tab page, whether this delivery can be processed for transport. Use F1 help to see an explanation of the status.

10-1-2 You want to load several items from different deliveries, that all have the same ship-to party, into the container. Do you have the option of doing this in the shipment document and entering which items are to be loaded into which container?

10-1-3 You have put together several deliveries for different customers in Hamburg into one shipment document for one lorry load. Do you have the option of dividing the shipping costs to the customer depending on the number of items being delivered to them?

10-1-4 What is the difference between a shipment document and a transfer order?

11-1 You want to pick your delivery, post goods issue and bill. You then want to check which accounts have been found in the accounting document.

11-1-1 First enter a transfer request for picking for the previous delivery (from exercise 9-2-1), for warehouse number **010** in plant **1000**. Note the document number.

11-1-2 Post goods issue for the outbound delivery.

11-1-3 Enter a billing document for the outbound delivery and note the document number.

11-1-4 Display the accounting document for the billing document and note which accounts have been posted for which amounts.



You can display the accounting document for the billing document with the transaction *Display billing document*: Choose *Accounting overview* and select the accounting document.

Solutions



Unit: Sales from Stock - Shortage

- Sales order processing
- Inventory sourcing

1-1-1 *Logistics → Sales and distribution → Master data → Products → Material → Trading goods → Display*

Choose the *Sales: General/Plant Data* view

Plant 1000

An availability check takes place for this material (checking group 01 daily requirement).

2-1-1 *Logistics → Sales and distribution → Master data → Products → Material → Trading goods → Display*

Choose the *Sales: Sales Org. Data 1* view

Sales organization 1000

Distribution channel 12

Delivering plant 1400 is proposed from the material master for this material.

2-1-2 *Logistics → Sales and distribution → Master data → Business partners → Customer → Display → Sales and Distribution*

Choose the *Sales and distribution area data: Shipping* tab page.

Delivering plant 1000 is proposed from the customer master for this customer.

2-1-3 During order entry, the plant proposal accesses the master data in the following sequence:

1. Customer-material info
2. Customer master
3. Material master

If different delivering plants have been specified in the master data, the proposal which corresponds to this sequence will be transferred for the sales order items.

2-1-4 You have the option of overwriting the proposal manually in the customer sales order.

As part of the availability check, you also have the option of checking in other plants.

3-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

3-2-1 Plant **1000**

3-2-2 Nothing can be confirmed for the required delivery date.

3-2-3 Only at the latest data proposed under *Complete delivery/delivery proposal*.

3-2-4 This is the date on which replenishment time ends.

3-2-5 Complete delivery: Choose ***Copy***

3-3-1 Choose ***Schedules lines for item***

There are two schedule lines. The first has the required delivery date, the order quantity and the confirmed quantity 0. The second schedule line has the confirmed delivery line and the confirmed quantity.

3-4-1 → ***Save***

The document number is assigned internally by the system.

4-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

4-1-2 ***Availability control*** screen

Choose ***Other plants → Plant 1400 → Check plants***

The complete quantity can be confirmed on the required date from plant 1400.

4-1-3 15 units

4-1-4 There is sufficient stock in plant 1400 and the replenishment lead time is shorter.

4-1-5 Choose ***Copy plant***

Choose ***Save***.

The document number is assigned internally by the system.

5-1-1 ***Logistics → Sales and distribution → Sales → Order → Display***

Choose ***Display availability***

Choose ***Scope of check***

In this case, purchase orders are also checked alongside other inward and outward movements.

5-1-2 When you display the ***Scope of check***, the field ***Check without RLT*** is not selected. This means that in this case the replenishment lead time has been taken into account.

6-1-1 ***Logistics → Materials management → Inventory management → Environment → Stock → Stock/requirements list***

You can see the plant stock in the line with the MRP element ***W-BEST***, in the ***Available qty*** column.

6-2-1 ***Logistics → Sales and distribution → Sales → Order → Create***

→ Save

The document number is assigned internally by the system.

6-3-1 ***Logistics → Materials management → Inventory management → Environment → Stock → Stock/requirements list***

You can see the requirement from the sales order in the line with the MRP element **K-AUFT**, in the **rec./reqd quantity**.

25 units

6-3-2 The requirements date (date in the first column) corresponds to the material availability date from the sales order.

7-1-1 A backorder can be executed if an order item is backdated. An order item is backdated if the order quantity is not complete or the required delivery date has not been confirmed in time.

7-1-2 A backorder can be implemented using manual backorder processing or rescheduling.

7-1-3 The delivery priority is taken from the customer master in the sales order and can be used as a sort criterion for orders during rescheduling.

8-1-1 If only part of the required quantity is available on the required delivery date and the customer agrees to a partial delivery, then a delivery split can be carried out and a partial quantity can be confirmed for the required delivery date.

If the customer does not allow partial delivery, the complete amount can only be confirmed for a later date.

8-1-2 The availability check takes place on the material availability date. The materials are required on this date, so that there is enough time remaining for packing, loading and so on before the required delivery date. This means the material availability date must be determined in the sales order before the availability check is carried out. This is determined using delivery scheduling.

8-1-3 If the item could not be confirmed for the required delivery date, then the system carries out delivery scheduling from the earliest possible date available (forward scheduling), in order to determine the delivery date (confirmation date).

Solutions



Unit: Sales from Stock - Shortage

- Shipping
- Billing

9-1-1 **Logistics → Sales and distribution → Sales → Order → Display**

Choose the **Shipping** tab page.

The *Complete dlv.* field is not selected. This means that individual items can be split up into separate deliveries.

9-1-2 The indicator for *Complete delivery* in the order header is proposed from the customer master.

9-1-3 Yes. Items can be split up into separate deliveries.

9-1-4 If the *Complete delivery* field is not selected in the order header, then it is still dependent on the partial delivery agreement at item level, whether the amount ordered can be divided up.

9-1-5 **Nothing (Partial deliveries allowed)** is entered in the Part.del./Item field for item 10 on the shipping tab page. This means that partial deliveries are allowed.

9-1-6 The proposal for the *PartDel/Item* field in the order item comes from the customer master. If a customer-material info already exists for the customer and the material, and the proposal here is different to that in the customer master, then this proposal has priority.

9-2-1 **Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order**

Change quantity to be delivered to 10 units.

→ **Save**

The document number is assigned internally by the system.

10-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Display***

Choose the **Transport** tab page.

A is entered in the *Trns. Plan.stat.* field. This means that the outbound delivery has not yet been processed in a shipment document.

It may also be the case that a delivery is not relevant for a shipment document (depending on the delivery type).

10-1-2 You can specify which items are to be loaded together into a container in the shipment document. You can also load items for different deliveries together into one container.

10-1-3 Yes. You can enter the shipment costs into a shipment cost document and distribute these accordingly amongst customers.

10-1-4 The **shipment document** is created and used to group together several deliveries for one shipment to a customer. For example, for one lorry driver.

The **transfer request** serves as a basis for picking.

It is created for a delivery, to control internal material movements.

11-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Picking → Create transfer order → Single document***

The document number is assigned internally by the system.

11-1-2 ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Change → Single document***

Choose **Post Goods Issue**.

11-1-3 ***Logistics → Sales and distribution → Billing → Billing document → Create***

Choose **Execute → Save**

The document number is assigned internally by the system.

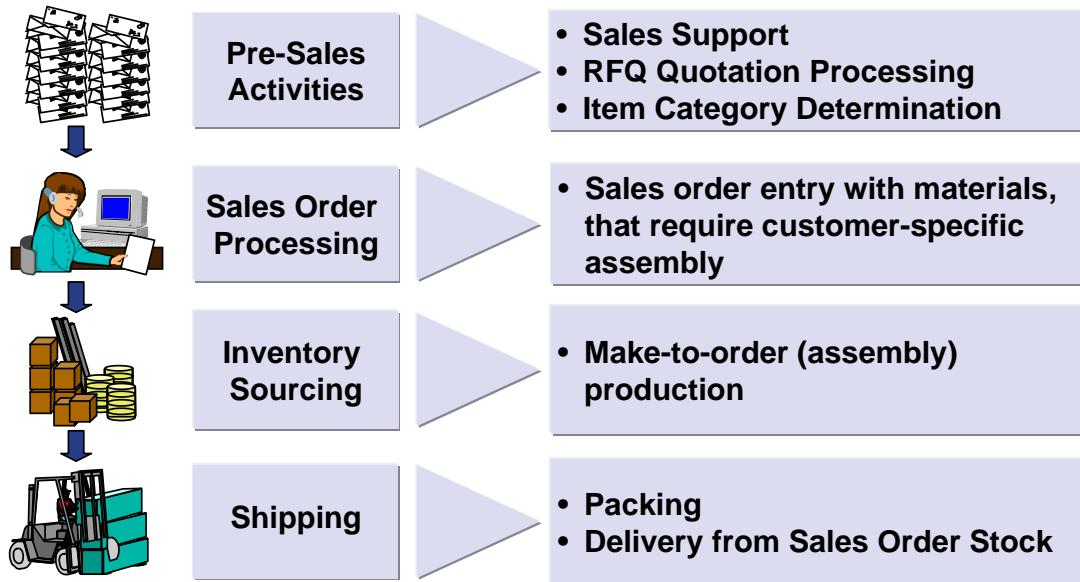
11-1-4 ***Logistics → Sales and distribution → Billing → Billing document → Display***

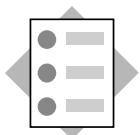
Choose **Accounting**

Select the **accounting document**

Debit posting is posted for the customer account and credit posting is booked for the output tax and sales revenue accounts.

Contents:



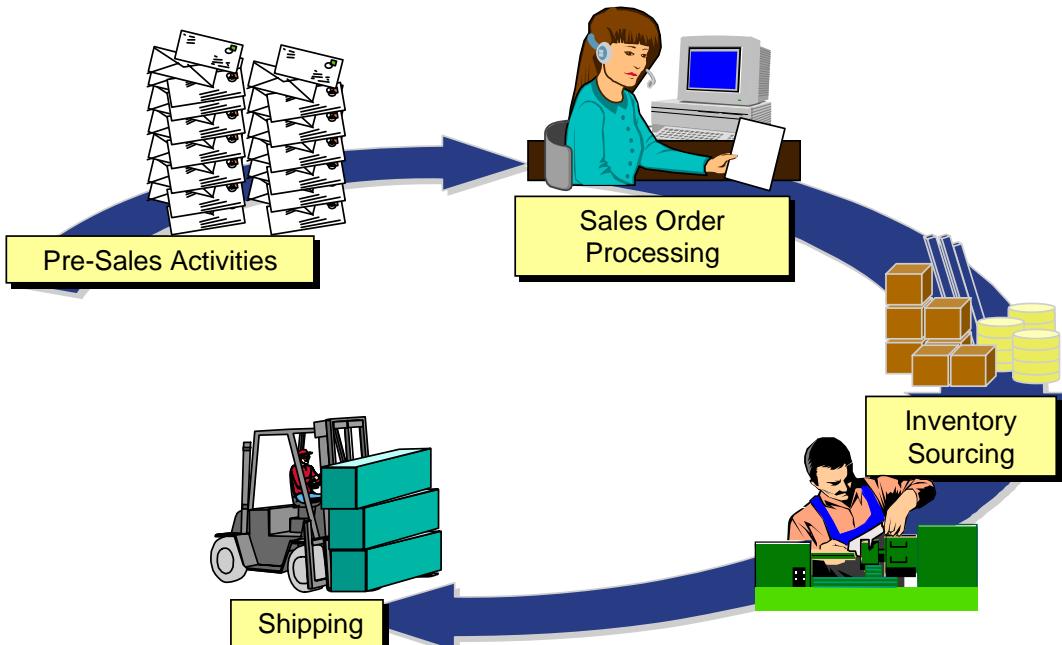


At the conclusion of this unit, you will be able to:

- **describe pre-sales activities**
- **Create a quotation**
- **Explain key functions of item categories**
- **Create a sales order with reference to a quotation**
- **Track the status of assembly orders for make-to-order sales orders**
- **Pack items into the outbound delivery**

Make-to-Order Overview Diagram

SAP



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- In sales order processing, it is likely that various pre-sales activities take place before you start actually processing an order.
- In sales order processing, you can determine for procurement that a product should be manufactured according to individual customer requirements. This is a make-to-order sales order.



- Before placing an order, the customer wants information on material prices and delivery times
- Later, the customer accepts the quotation and places an order
- The customer accepts the quotation and places an order
- The customer orders a motorbike, which is to be manufactured to his own requirements.
- This requires co-operation between Sales and Distribution and Manufacturing.
- Before the motorbike is delivered, it must be packed.

Sales Support Tasks

SAP



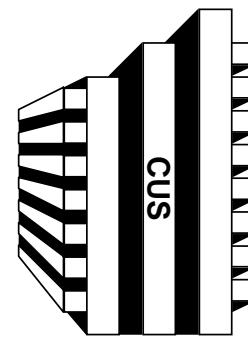
Sales executive

Master data
Business partners
Products

Sales promotions
Direct mailing
campaigns

SIS
Evaluations on:
Incoming orders
Sales figures

Sales activities
Visits
Telephone calls
Letters



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- Support for the employees in Sales and Distribution and Marketing for all the activities involved in acquiring and taking care of customers. You can implement the following activities in the Sales Support System:
 - Prepare information about customers, prospective customers, contact people, competitors and their products
 - Manage sales activities such as telephone calls and customer visits
 - Carry out direct mailing campaigns
 - Direct access to the Sales Information System (SIS) with a wide range of evaluations for things such as sales volume figures and the number of incoming orders

- **Inquiries** are customer requests to the company for a quotation or non-binding sales information.
- The validity period can be used as a processing limit

Inquiry/Quotation

Sold-to party 2300

Valid from 01.01

Valid until 05.02

Item	Material	Quantity	Price
10	1400-100	10	60
20	1400-200	20	30

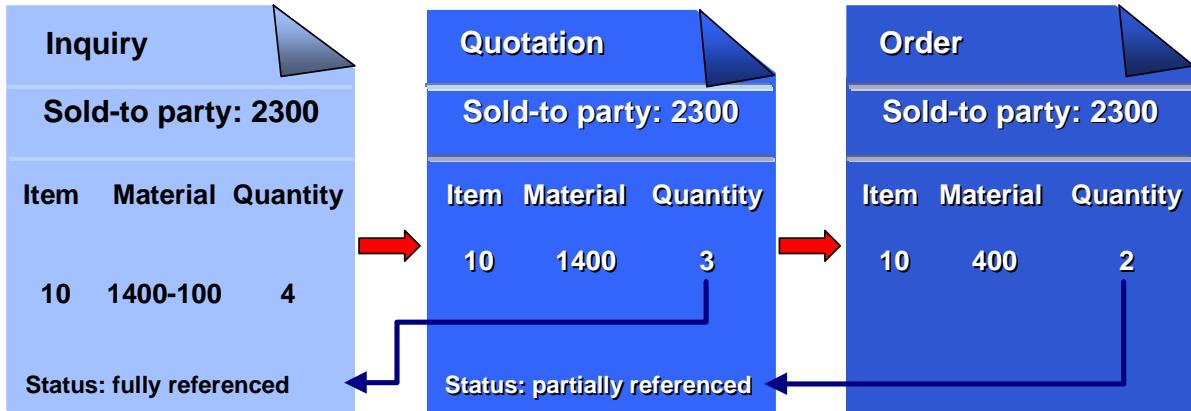
- **Quotations** are offers from a sales area to a customer for delivering materials or providing services under specified conditions.

- **Quotations** are legally binding throughout the given validity period.

- You receive inquiries from customers asking, for example, about prices or delivery times for certain goods.
- You offer your customer a quotation for a certain material with information about prices, delivery times, etc.

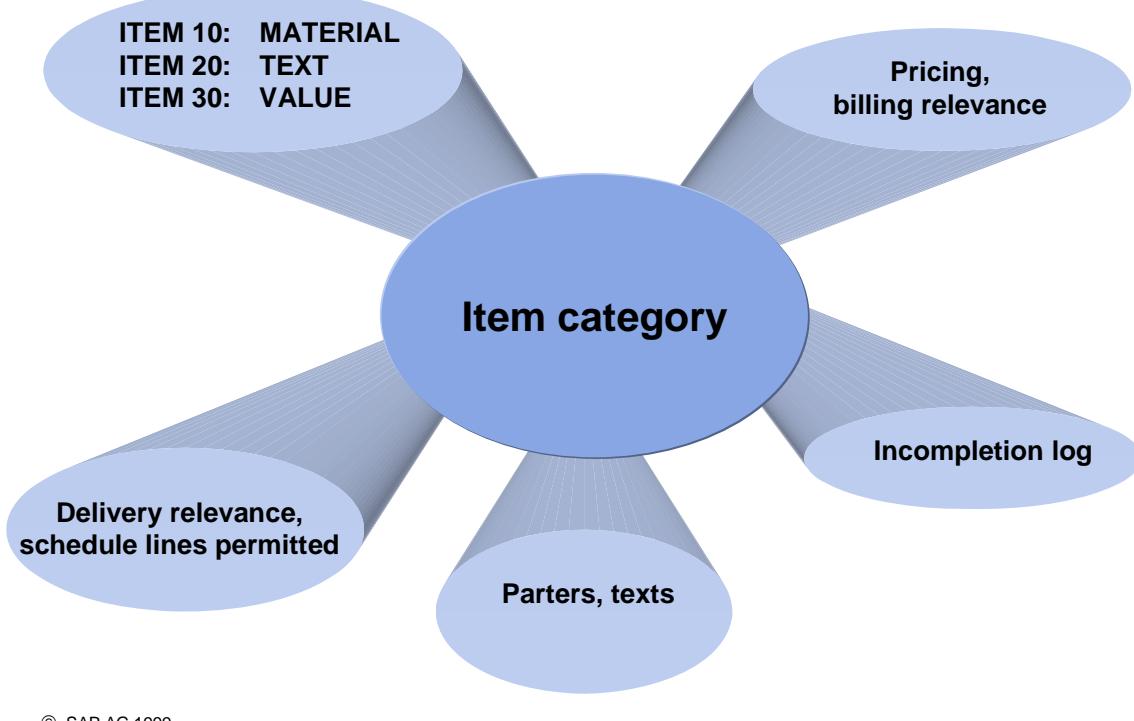
Document Flow in the Pre-Sales Phase

SAP



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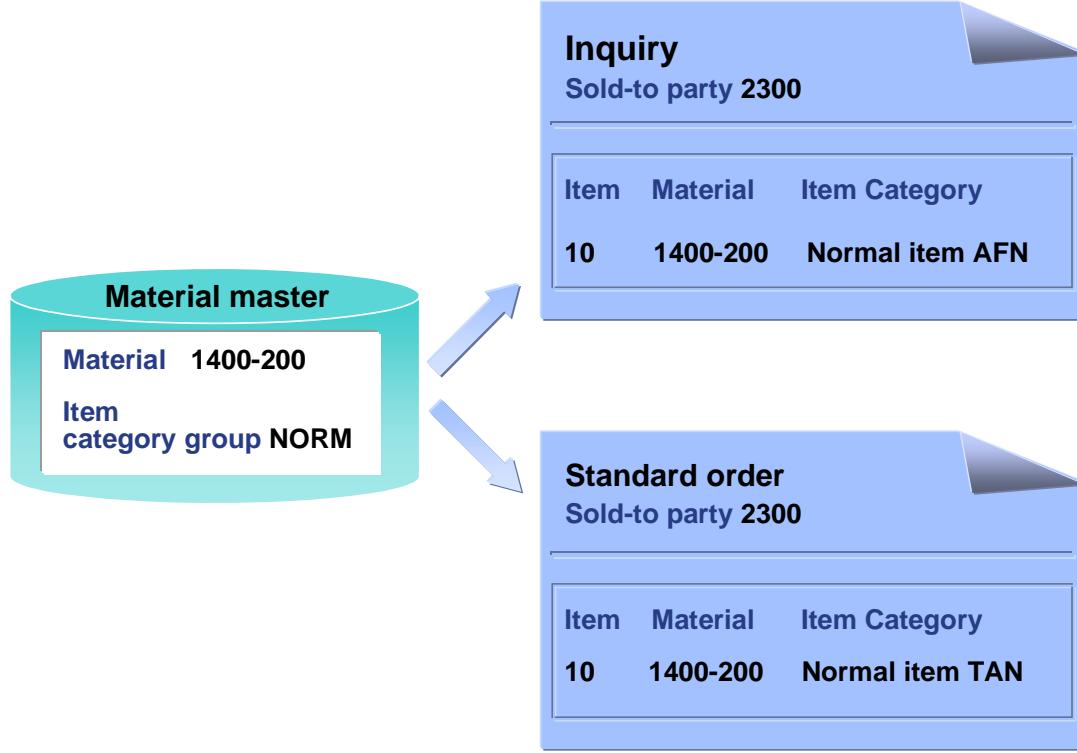
- In the standard SAP system, the inquiry is taken as being completely referenced as soon as the customer receives a quotation referring to the inquiry.
- A quotation can be referenced for as long as it takes for the full amount or the validity date to be reached.
- The document flow in the pre-sales phase can consist of both inquiries and quotations. If a customer accepts a quotation, the sales order follows.
- You can also create quotations without having an inquiry from a customer.



- Item categories provide additional control functions for the sales documents.
- By using an item category, the system can process a material differently in each sales document type.
- The item category in the sales document is defined using the sales document type and the material.
- An item category can influence, for example:
 - Whether the system runs automatic pricing
 - Whether the item appears on an invoice
 - Which fields are recorded in the incompletion log if they weren't entered in the order
 - Which partner functions belong to the item
 - Which text types belong to the item
 - Whether the item appears on a delivery
 - Whether you can create schedule lines for the item

Item Category Determination Normal Item

SAP

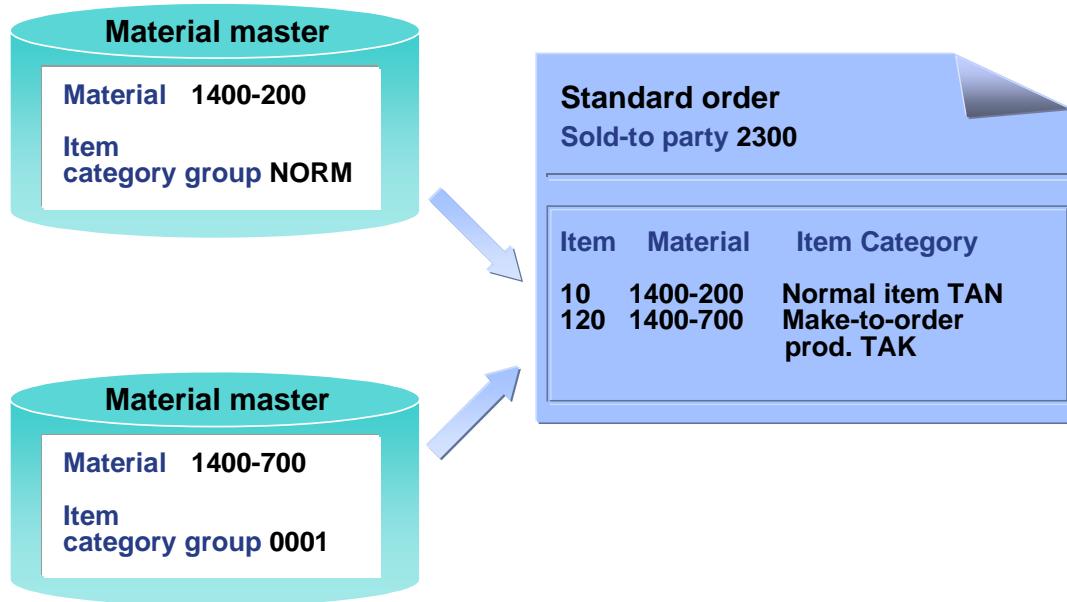


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- The item category in the sales document is found using the sales document type and the item category group from the material master.
- The item category group is in the material master on the sales and distribution tab page: maintained in the Sales Org. Data 2.
- Another item category from the one in the standard order is found for the material with the item category group Norm.

Item Category Determination in the Standard Order

SAP

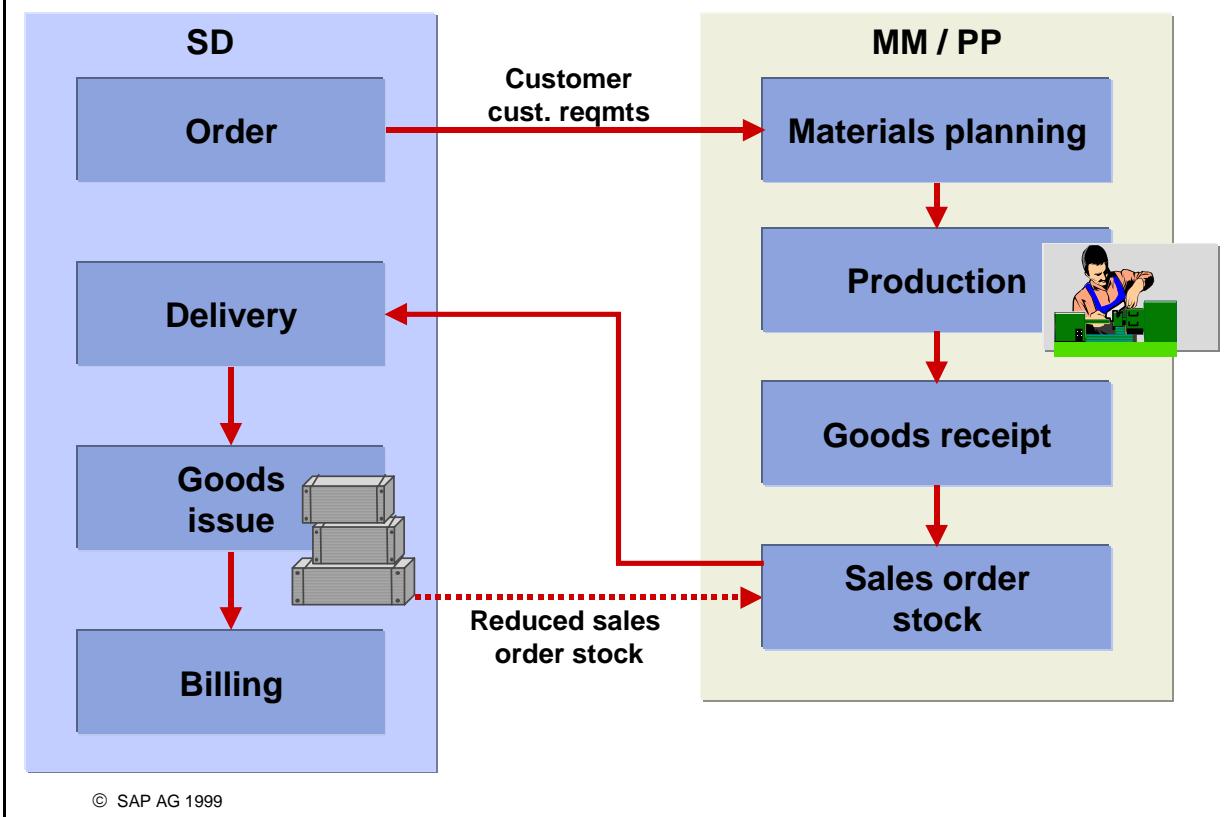


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- The item category in the sales document is found using the sales document type and the item category group from the material master.
- The item category group is maintained in the material master on the sales and distribution tab page: in the Sales Org. Data 2.
- Another item category than that for a material with item category group 0001 is found for a material with the item category group Norm.

Make-To-Order Flow

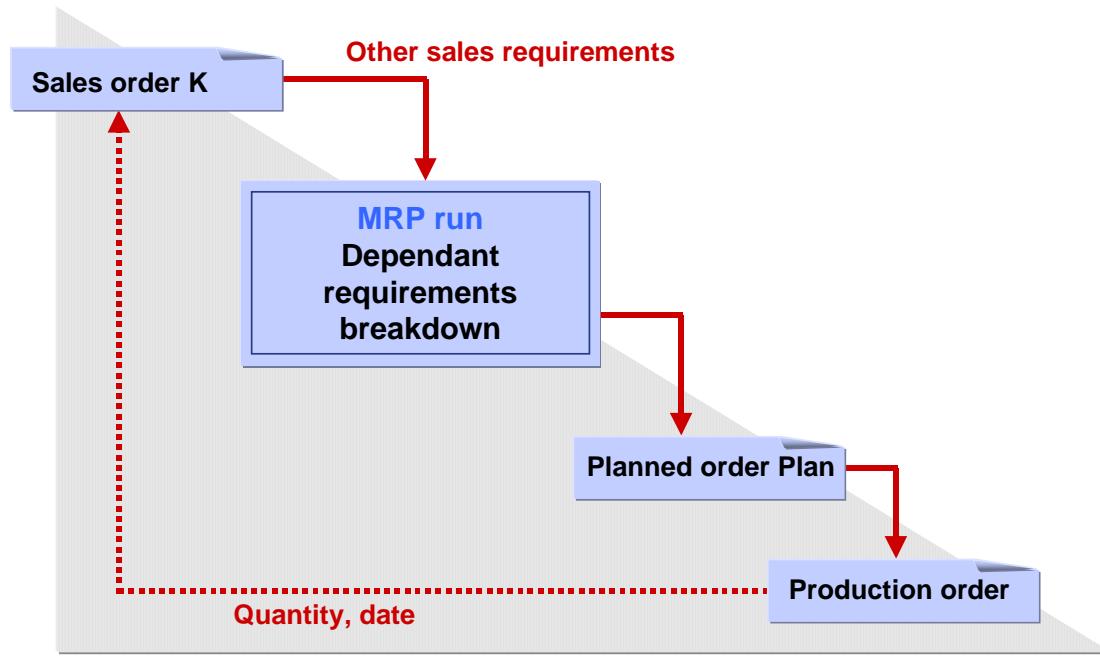
SAP



- Make-to-order production is characterized by the fact that materials are not stored in the warehouse but produced especially for a particular sales order.
- An individual customer requirement is generated from the sales order item and transferred to materials planning (PP).
- You can use materials planning to plan requirements. Once this has been done, production is carried out. After the product has been manufactured, you post it by goods receipt to sales orders stock specifically for this sales order item.
- As soon as the delivery is due, you can enter the delivery in SD and post goods issue. This reduces the sales order stock. Then you enter a billing document in SD.

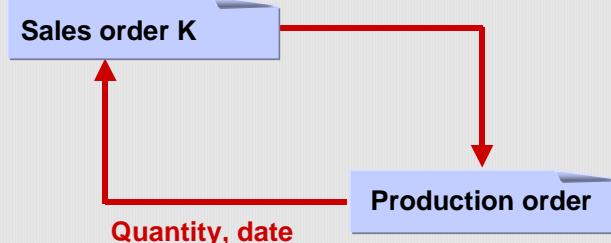
Make-To-Order Production without Assembly Processing

SAP



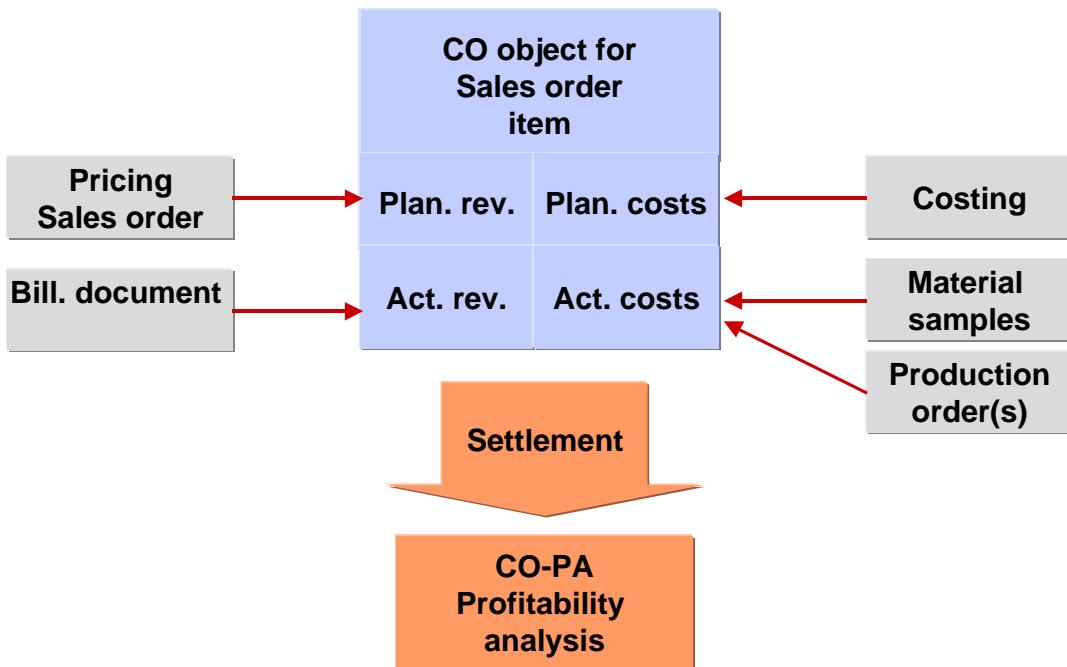
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- The requirement quantity (planned independent requirements), delivery date and configuration specifications are transferred from the sales order to materials planning (PP) as an individual customer requirement.
- You then use a planning run to generate a planned order. Here, bills of material are exploded and dependent requirements for the assemblies and components are generated.
- As soon as production can start, you create a production order from the planned order.
- The system returns the confirmed quantity and delivery date from the production order to the sales order.



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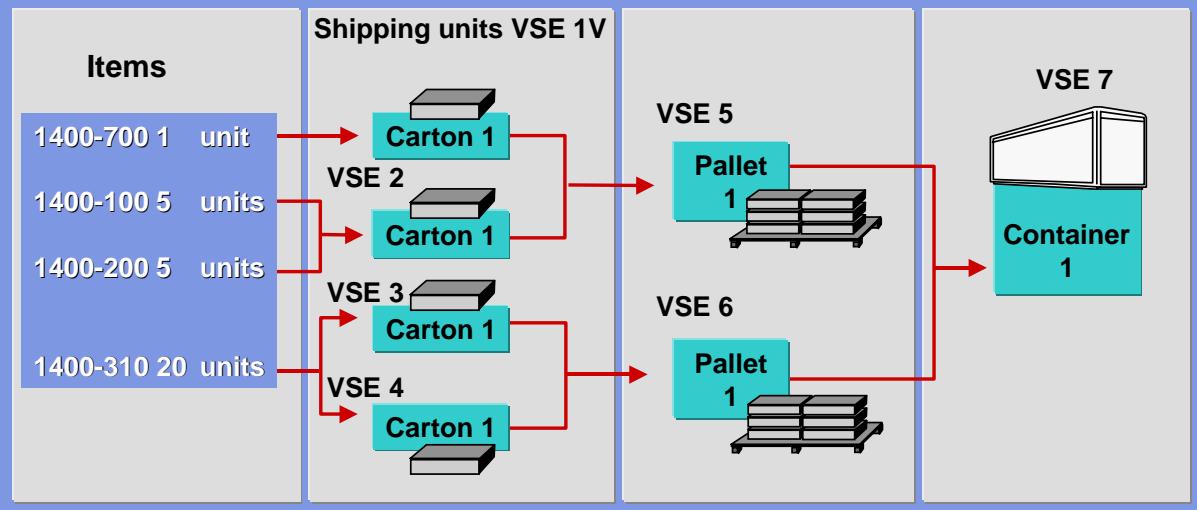
- The individual components for the final product have already been produced for make-to-order production with assembly production. You then only need to assemble the components according to the customer's wishes. This means you just need a one-level bill of material explosion and you do not need to generate dependent requirements.
- This means that you do not need a planning run at this point for make-to-order production with assembly processing. You can create a production order directly from the sales order.
- The system returns the confirmed quantity and delivery date from the production order to the schedule lines in the sales order.
- Any changes made to the confirmed schedule lines or the delivery date are immediately visible in the sales order and/or in the production order.



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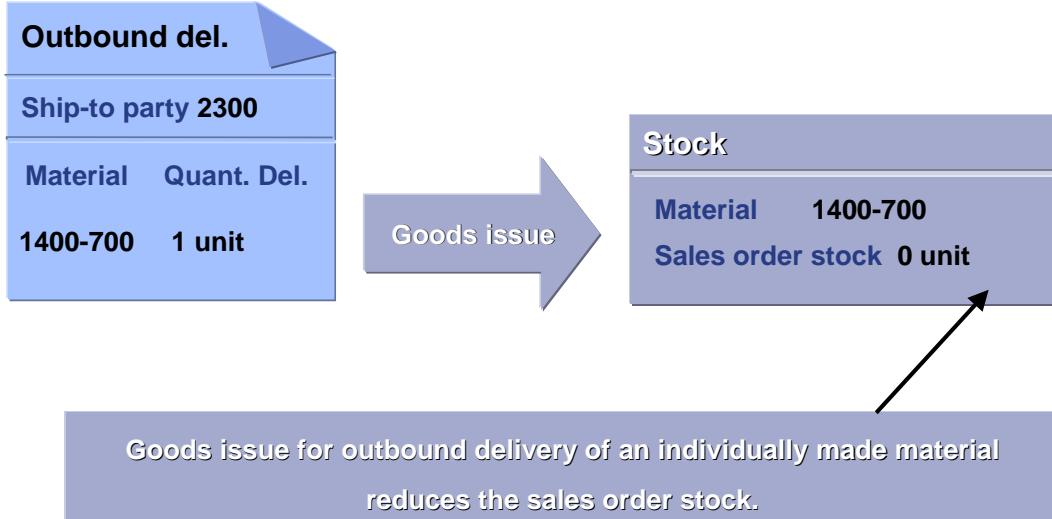
- In sales order processing, the costs and sales revenue for a sales order item are collected in a controlling object for that item and settled in a profitability analysis.
- Pricing in the sales order determines the planned sales revenues (net value 2) and the actual sales revenue is posted in the billing document.
- The planned costs are compared to the revenues. They arise from product or unit costing, or from the valuation price in the material master (standard price or moving average price).
The actual costs are calculated from the withdrawal, production orders, internal activity allocation and surcharges.
- The accrued actual sales revenues and costs are settled in the CO-PA Profitability Analysis in order to determine the profit or loss.

Delivery



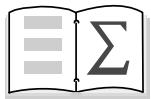
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- When packing, you can combine delivery items and pack them in different shipping units. You can mark items to be packed in the delivery and then assign them to shipping units.
- A shipping unit can be packed into another shipping unit. Shipping elements (SU) 1 and 2 are, for example, packed in SU 5.



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- After Production has finished making the material, goods receipt is posted in the sales order stock.
- Sales order stock is special stock, which can only be used for a specific sales order.
- After goods issue for outbound delivery, the sales order stock is reduced accordingly.



You are now able to:

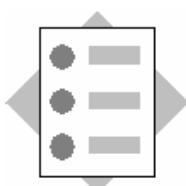
- **Describe pre-sales activities**
- **Create a quotation**
- **Explain key functions of item categories**
- **Create a sales order with reference to a quotation**
- **Track the status of assembly orders for make-to-order sales orders**
- **Pack items into the outbound delivery**

Exercises



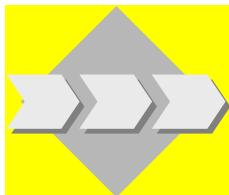
Unit: Make-To-Order

- Pre-Sales Activities
- Item Categories



At the conclusion of these exercises, you will be able to:

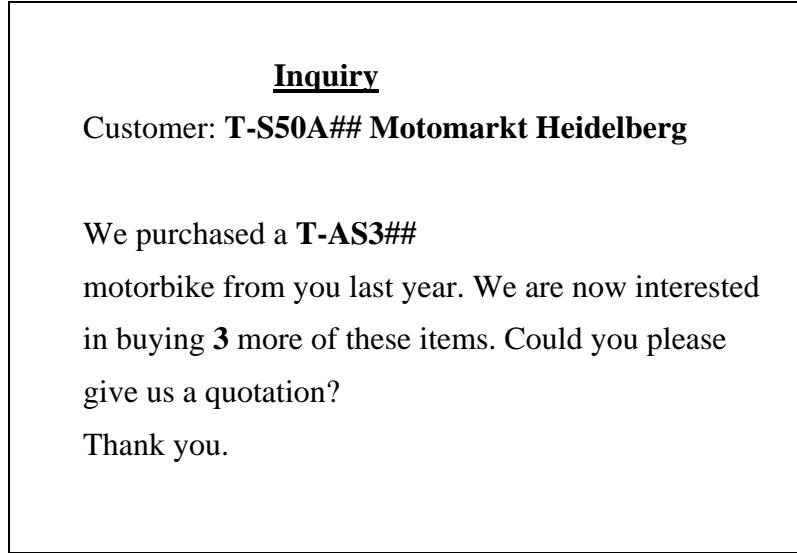
- Process inquiries and quotations
- Understand item category determination



You receive a customer inquiry about motorbikes. You can use this inquiry to create a quotation.
Information defined in the quotations, such as prices and delivery conditions, is binding and valid for a specific period.

1-1 Create an inquiry.

1-1-1 You receive a written inquiry from a customer for a motorbike. You want the inquiry to be processed by the **end of the month**.



You create an inquiry using the menu path *Logistics* → *Sales and Distribution* → *Sales* → *Inquiry* → *Create*

During inquiry creation the field *Valid to* is entered as a processing deadline and is also used later in quotation processing.

Create the inquiry and record the number.

1-2 Create a quotation.

- 1-2-1 The next day you process the inquiries received. First of all you create a list of all inquiries for customer **T-S50A##**, that need to be processed by the end of the month.



You create inquiries using the menu path *Logistics → Sales and distribution → Sales → Information system → Inquiries → Inquiries List*

1-2-2 Create a quotation for the inquiry.

As there is currently a lot of demand for this bike, you only want to offer the customer **2**. The quotation should be valid from **today** until **the end of the month after next**. Create the inquiry and note down the number.



Create a quotation with reference to the inquiry using the menu path *Logistics → Sales and distribution → Sales → Quotation → Create*
Choose *Create with reference*.

1-3 Create an order with reference to the quotation.

1-3-1 Customer **T-S50A##** orders **1 T-AS3##** motorbike as a result of the quotation.

Purchase order from the quotation	
Customer:	T-S50A##
Purchase order number:	8-131
Required delivery date:	in 10 days
<u>Material</u>	<u>Quantity</u>
T-AS3##	1

Create the **standard order** and note down the number.

1-4 Determine the reference status for the items in the inquiry and the quotation from the previous exercises.



The status overview for the individual documents can be displayed from the document flow.

1-4-1 Display the reference status for the item in the inquiry.

1-4-2 Display the reference status for the item in the inquiry.

1-5 Questions on the pre-sales documents.

1-5-1 Name some of the differences between an inquiry and a quotation.

1-5-2 An inquiry must be set up before a quotation can be created.

1-5-3 Does automatic pricing take place during entry of quotations or inquiries?

1-5-4 Do you have the option of carrying out the availability check in an inquiry or a quotation as you do in the sales order?

2-1 How is the item category found in the sales document?

2-1-1 Display the last inquiry processed and note which item category has been found.

2-1-2 What does finding the item category in the sales document depend on?

2-1-3 Can different items be created in an order with different item categories?

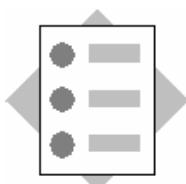
2-1-4 Can you set an item in an inquiry so that it is not relevant for billing and that an item in a sales order is relevant for billing, depending on the item category?

Exercises



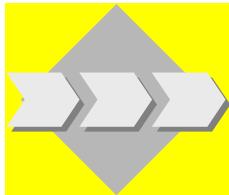
Unit: Make-To-Order

- Sales order processing
- Shipping



At the conclusion of these exercises, you will be able to:

- Understand the make-to-order process
- Pack items into the outbound delivery



A customer orders a specially lacquered petrol tank from you in accordance with his own personal requirements. You also send him assembly instructions and go-faster stripes for his car. The individual materials should be packed into a carton for shipping.

3-1 Process make-to-order production.

- 3-1-1 The customer orders a petrol tank for his motorbike. He has requested that you lacquer and assemble the tank before it is delivered. The material master T-FS1##, a bill of material and a work plan were already created in the foreground. Create a **standard order** based on the purchase order.

<u>Purchase order</u>	
Customer:	T-S50A##
Purchase order number:	8-311
Required delivery date:	in 10 days
<u>Material</u> <u>Quantity</u>	
T-FS1##	1



Do not save the order yet!

- 3-1-2 You give out the assembly instructions **T-AS7##** and the go-faster stripes **T-AS8##** free-of-charge with the petrol tank. Therefore, enter both materials in the above sales order as well.



As you want to make it clear in the sales order that both materials belong to petrol tank T-FS1##, enter both items under the sub-ordinate item 10.

Also enter **10** in the *Item Overview* field for items 20 and 30.

3-1-3 What item categories do the three items have?

3-1-4 What is the net price of the three items?

3-1-5 Save the sales order and note down the number.

3-2-1 Display the sales order from the previous exercise.

Check the procurement data for petrol tank **T-FS1##** on the schedule line for item 10.



To reach the procurement data for the schedule line, choose *Schedule line for item*, and then *Procurement*.

Note down the number of the assembly order.

- 3-2-2 Display the assembly order header. Note the basic dates for the start and finish of the assembly order.
-
-

- 3-2-3 Which date in the sales order corresponds to the end date in the assembly order?
-

- 3-3-1 The customer informs you that he would like to have petrol tank **T-FS1##** delivered **8 days later**. Change the **required delivery date** for **item 10** accordingly in the sales order.

Note the effects of the assigned items 20 and 30 on the required delivery date.

- 3-3-2 Display the assembly order header for petrol tank **T-FS1##** (item 10). Note down how the end date has changed.
-



To display the assembly order from the sales order, choose *Schedule line for item* → *Procurement* → *Header*

4-1 Enter the goods receipt.

4-1-1 Production gives you notice that the petrol tank is assembled. In materials management, enter the goods receipt for the assembly order in the sales order stock in **Plant 1000**, **Location 0001**.



You can enter goods receipt in materials management using the menu path *Logistics → Materials management → Inventory management → Goods movement → Goods receipt → For order*

Movement type 101

Order Order assembly number (see exercise 3-2-1)

Plant 1000

Location 0001

4-1-2 Display the sales order stock in the stock overview for material **T-FS1##** in plant **1000**.



You can display the stock overview in materials management using the menu path *Logistics → Materials Management → Inventory Management → Environment → Stock → Stock overview*

How many units are there in the sales order stock?

5-1 Process shipping.

5-1-1 Enter the outbound delivery for the previous sales order and pack the items.



To be able to enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use shipping point **Z0##**.

Pack three items into shipping help **PK-096**.

Save the outbound delivery and note down the order number.

5-1-2 Pick the delivery and post goods issue.

(Warehouse number **010**)

5-1-3 Then display the sales order stock in the stock overview for material **T-FS1##** in plant **1000**. How many units are there in the sales order stock?



You can display the stock overview in materials management using the menu path *Logistics → Materials Management → Inventory Management → Environment → Stock → Stock overview*

Solutions



- Unit: Make-To-Order**
 - Pre-Sales Activities
 - Item Categories

1-1-1 ***Logistics → Sales and distribution → Sales → Inquiry → Create***

Choose **Save**.

The document number is assigned internally by the system.

1-2-1 ***Logistics → Sales and Distribution → Sales → Information system → Inquiries → Inquiries list***

Sold-to party T-S50A##

1-2-2 ***Logistics → Sales and distribution → Sales → Quotation → Create***

Choose **Create with reference**

Enter the **number of request for quotation**.

Choose **Selection list**

Change the *quantity* to **2 units**.

Choose **Copy**

Choose **Save**.

The document number is assigned internally by the system.

1-3-1 ***Logistics → Sales and distribution → Sales → Order → Create***

Choose **Create with reference**

Enter the **number of request for quotation**.

Choose **Selection list**

Change the *quantity* to **1 unit**.

Choose **Copy**

Choose **Save**.

The document number is assigned internally by the system.

1-4-1 ***Logistics → Sales and distribution → Sales → Inquiry → Display → Environment → Display document flow***

set the cursor on **Inquiry** → choose **Status overview**

Expand item 10

Reference status: completely referenced

The reference status for the inquiry states that it is completely referenced, although only 2 from the 3 units have been copied into the quotation. An inquiry is indicated as being completely referenced in the standard system, as soon as a quotation (regardless of the quantity) has been created for the inquiry.

1-4-2 ***Logistics → Sales and distribution → Sales → Quotation → Display → Environment → Display document flow***

set the cursor on **Quotation** → choose **Status overview**

Expand item 10

Reference status: partly referenced

The **reference status** for the quotation is **partly referenced**. Only one piece was copied from the quotation amount (2 pieces) into the sales order. A quotation is indicated as partially referenced in the standard system until the full amount has been transferred into the orders.

1-5-1 Inquiries are customer requests for quotations. Inquiries come from customers. Quotations are made to customers.

For inquiries, the validity date is used in the system as a processing deadline for an answer to the inquiry. Quotations are legally binding during the customer validity period.

1-5-2 Depends on the results of scheduling. Quotations without reference can also be created for an inquiry.

1-5-3 Yes. Automatic Pricing takes place (dependent on Customizing) during inquiry and quotation creation.

1-5-4 Yes. An availability check is carried out during inquiry and quotation entry in the same way as during sales order entry (dependent on Customizing).

2-1-1 ***Logistics → Sales and distribution → Sales → Inquiry → Display***

The item category **Inquiry item** is on the *Sales* tab page.

2-1-2 The item category is found in the material master and is dependent on the sales document type (inquiry, quotation, standard order,...) and the item category group.

2-1-3 Yes. Different items can be created in an order with different item categories.

2-1-4 Yes. Billing relevance, pricing, delivery relevance and the incompletion log, for example, can be set in Customizing, dependent on item categories.

3-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

3-1-2 Enter items 20 and 30.

Enter **10** in the *Item Overview* field for items 20 and 30.

3-1-3 Item 10: Make-to-order production TAK

Item 20: Complementary item TANN

Item 30: Complementary item TANN

3-1-4 Item 10: 297

Item 20: 0

Item 30: 0

3-1-5 Choose **Save**.

The document number is assigned internally by the system.

3-2-1 ***Logistics → Sales and distribution → Sales → Order → Display***

Item 10: Choose *Schedules line for item*

Choose *Procurement*

The document number for the assembly order has been assigned internally.

3-2-2 Choose **Header**

The end and start dates have been calculated by the system. Backward scheduling for the assembly order is carried out on the basis of the work plans for the material (petrol tank). Backscheduling is carried out from the sales order material staging date.

- 3-2-3 The end date of the assembly order corresponds to the material staging date in the sales order.

3-3-1 **Logistics → Sales and distribution → Sales → Order → Change**

Item 10: Change required delivery date to 8 days in the future.

The required delivery date for items 20 and 30 changes according to the date in item 10, as they are subordinate to this item.

3-3-2 **Logistics → Sales and distribution → Sales → Order → Display**

Item 10: Choose *Schedules line for item*

Choose *Procurement*

Choose **Header**

As the required delivery date was changed in the previous exercise, a new material staging date was determined in the sales order. This new material staging date has been transferred to the assembly order as a new end date.

4-1-1 **Logistics → Materials management → Inventory management → Goods movement → Goods receipt → For order**

Movement type 101

Order Order assembly number (see exercise 3-2-1)

Plant 1000

Location 0001

Choose *Adopt + Details*

Choose *Save*.

4-1-2 **Logistics → Materials management → Inventory management → Environment → Stock → Stock overview**

There is **1 unit** in the sales order stock.

5-1-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order***

Choose **Pack**

Packaging material PK-096

Select the shipping unit and the items for packing → Choose Pack

Choose **Save**.

The document number is assigned internally by the system.

5-1-2 Picking: ***Logistics → Sales and distribution → Shipping and transportation → Picking → Create transfer order → Single document***

The document number is assigned internally by the system.

Goods issue: ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Change → Single document***

Choose **Post Goods Issue**.

5-1-3 ***Logistics → Materials management → Inventory management → Environment → Stock → Stock overview***

There is no longer any sales order stock.

Contents:



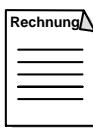
Sales order processing

- Returns
- Credit memo request
- Invoice correction request



Delivery

- Goods receipt in blocked stock returns



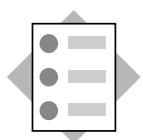
Billing

- Credit memo for returns
- Credit memo for credit memo request
- Invoice correction



Payment

- Accounting document with credited amount for the customer

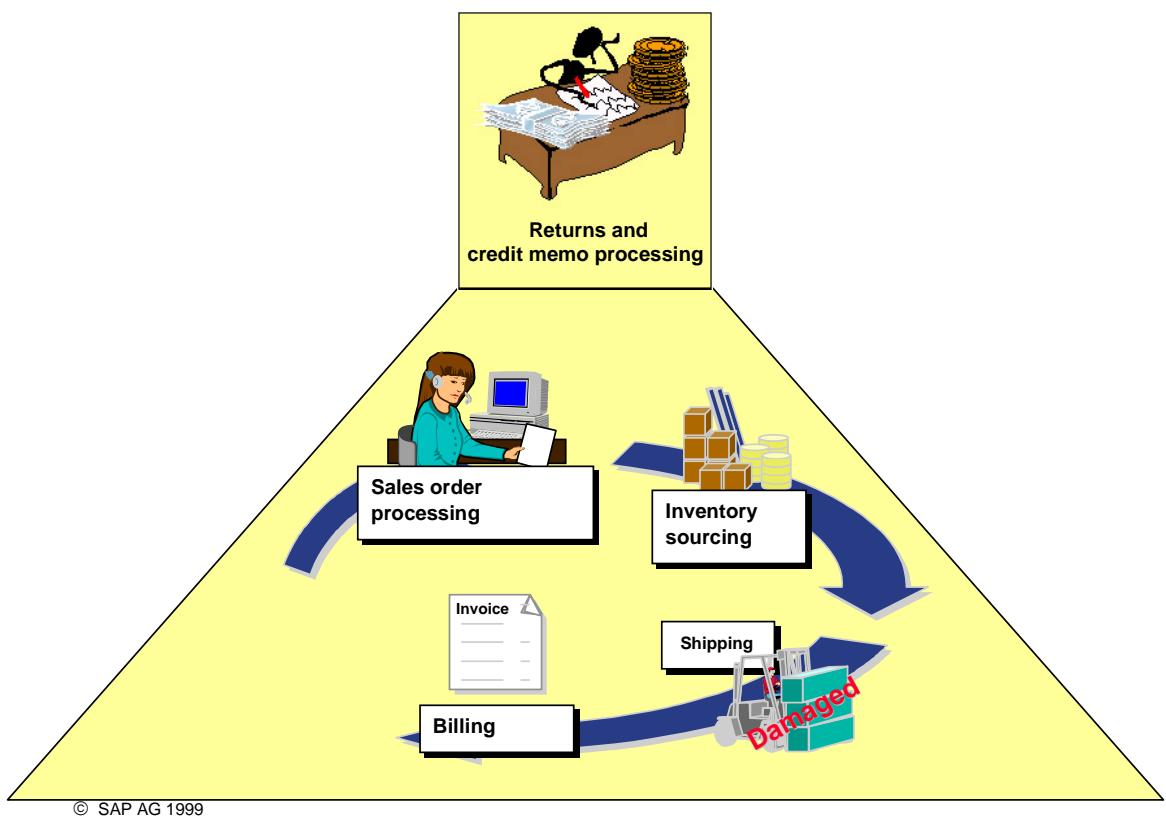


At the conclusion of this unit, you will be able to:

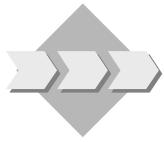
- Process a complaint relating to a sales and distribution process
- Carry out the following sales and distribution processes and explain them in detail:
 - Handling of returns
 - Credit memo and debit memo processing
 - Invoice correction
 - cancelling a billing document

Returns / Credit Memo: Overview Diagram

SAP



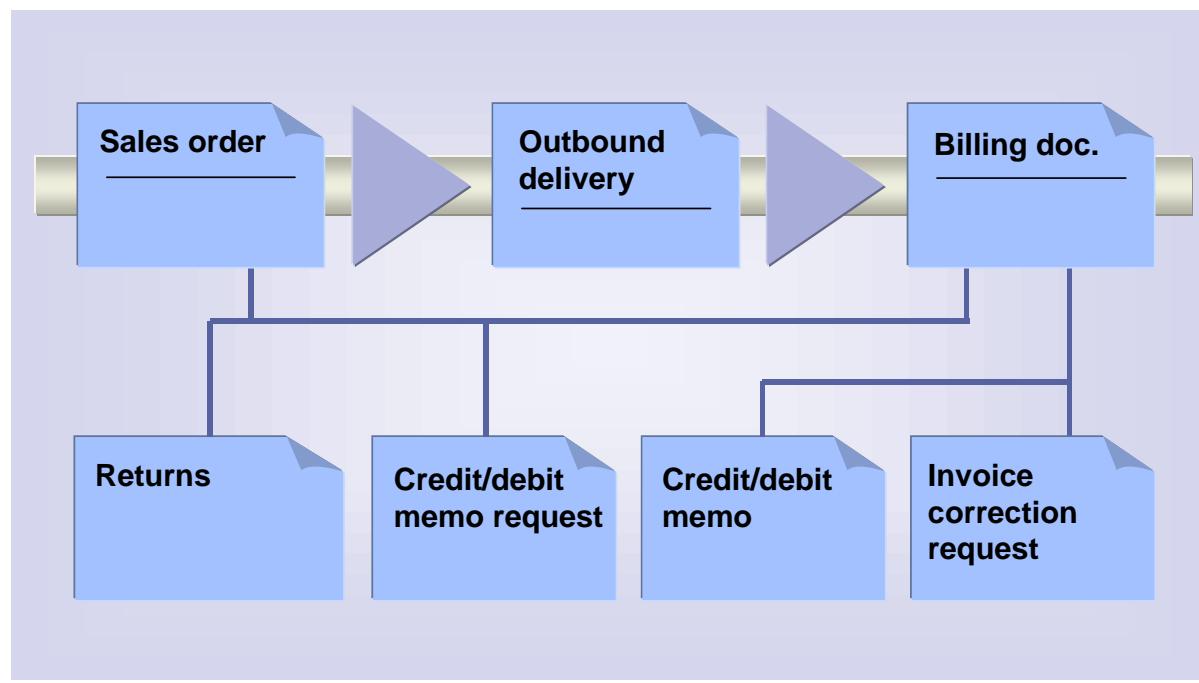
- Complaints and returns occur in practically every area of business. Depending on the transaction, goods are either sent back or invoices are corrected.
- This unit deals with various processes that have already been implemented in the standard R/3 system.



- Damaged goods or incorrect invoices lead to complaints.
- If the complaint concerns valuable goods, the goods must be sent back. The damaged material must first of all be checked. To do this, it is stored in a specific place.
- Customers receive a credit memo when they have had just reason to complain. You must ensure that the correct amount is credited to the customer account. Before a credit memo is issued, approval from an authorized person is required.

Processes in Complaints Processing

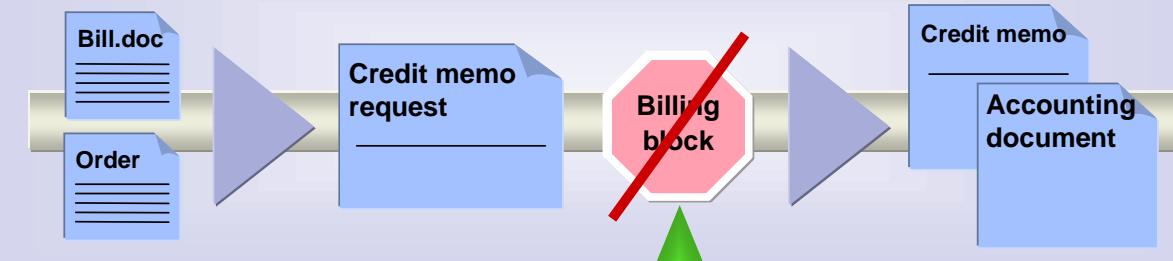
SAP



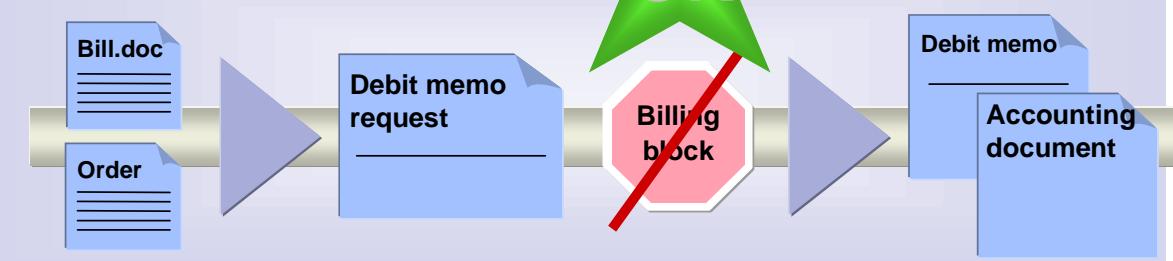
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- You create returns, a credit and debit memo request, a credit and debit memo or an invoice correction request after you have:
 - Created a sales order
 - Delivered the goods to the customer, and billed the customer for the goods
- Create a return request (authorization) if the customer returns the goods to you.
- You create an invoice correction request if there is a price or quantity deviation.
- You can create the returns or a credit or debit memo request with reference to a sales order or a billing document.
- You create the invoice correction request or credit/debit memo (without credit/memo request) with reference to the billing document.
- For returns, credit/debit memo request or invoice correction request, billing takes place after checking and approval, by creating a credit or debit memo.

Credit memo

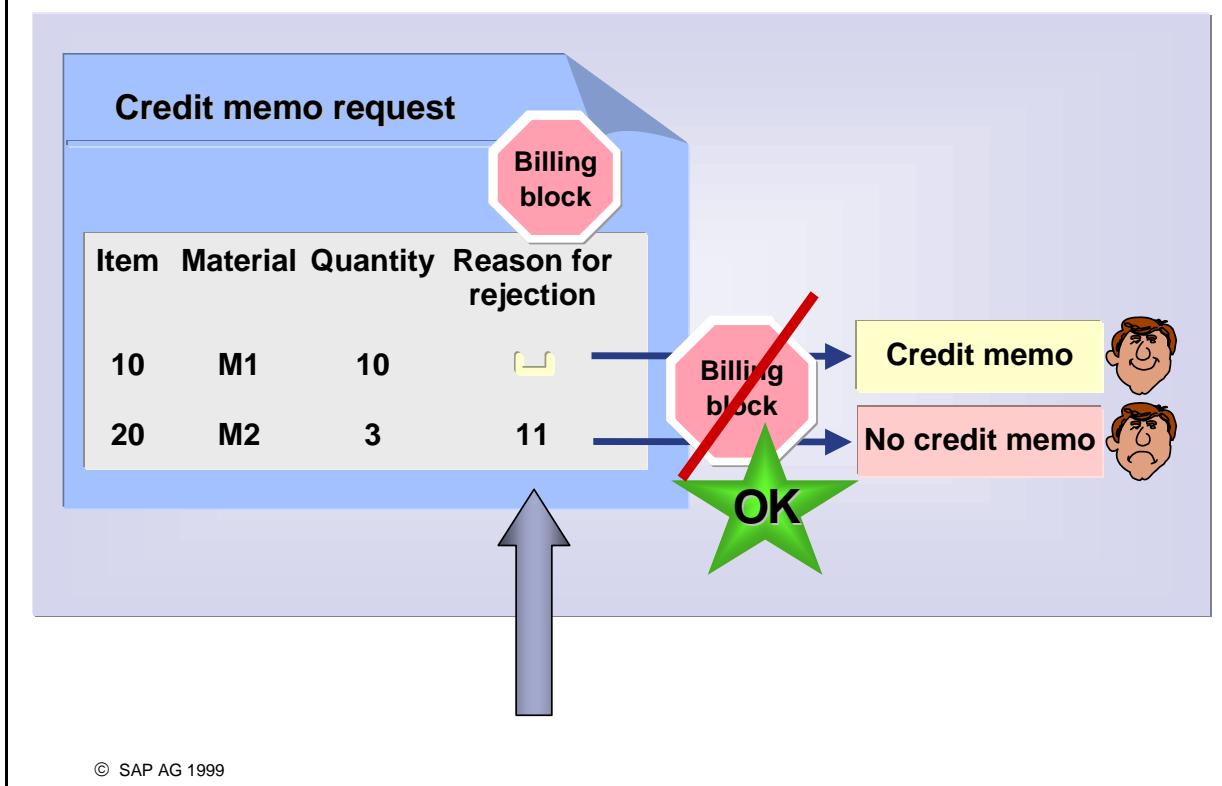


Debit memo



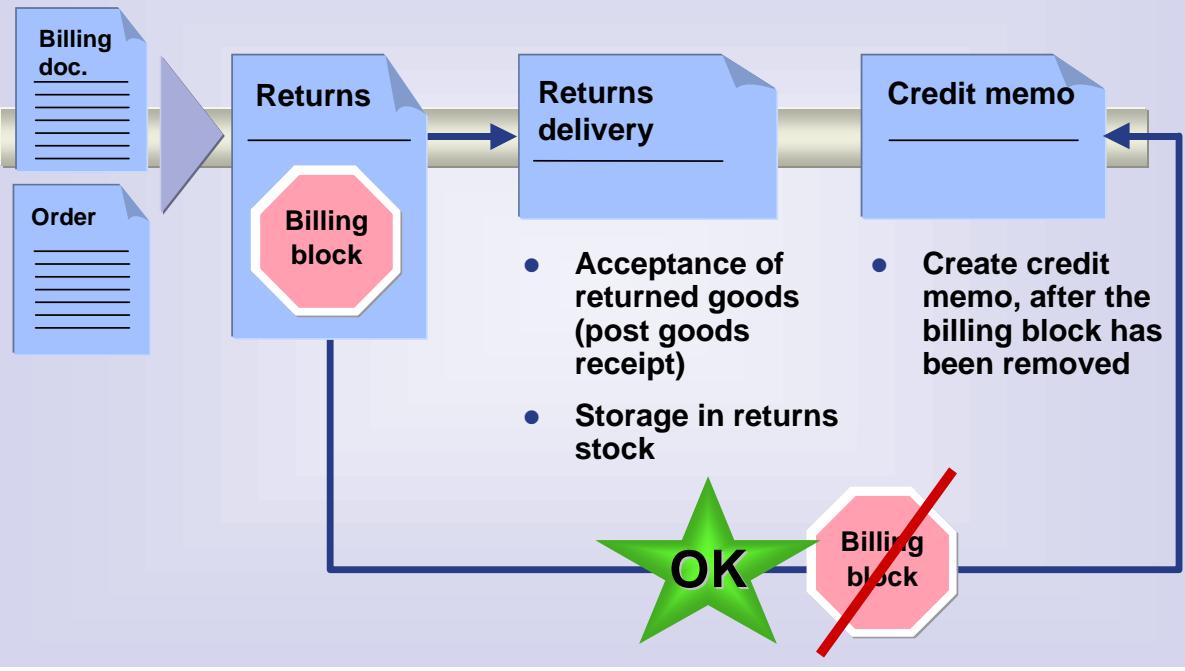
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- The credit and debit memo processes are the same.
- You can create credit and debit memo requests by referencing either the invoice or sales order. The system can then transfer the correct amount from the preceding document.
- Enter an order reason (reason for adjustment) for evaluation purposes.
- A billing block is automatically assigned to the credit memo request or debit memo request. This prevents immediate billing. After checking the document, it can be approved by removing the billing block.
- During posting of the billing documents (credit memo or debit memo) the required accounting documents are created. By doing so, the correct amounts are debited or credited against the customer's A/R account.



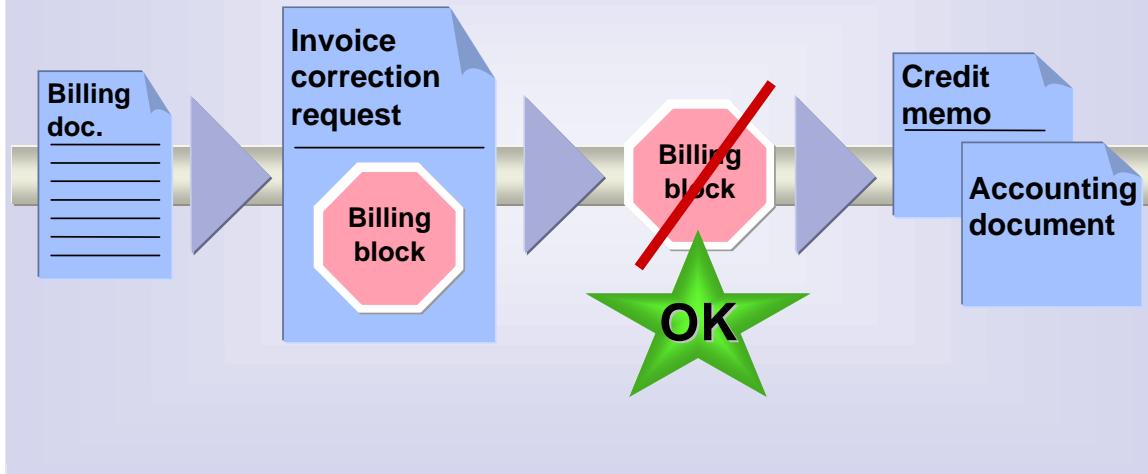
- Before a credit memo can be created, there is an approval or checking step in the R/3 standard system. This is carried out by implementing a billing block.
 - The returns, credit memo request, debit memo request and invoice correction request sales document types do not contain a corresponding billing block.
- These documents are checked by an employee who has the necessary authorization. Unauthorized complaints are rejected, by entering a reason for rejection for the items concerned. After all items have been checked, the document can be released for billing. This removes the billing block.
- Rejected items are not transferred into the billing documents. However, they are still available for evaluation purposes.

Returns



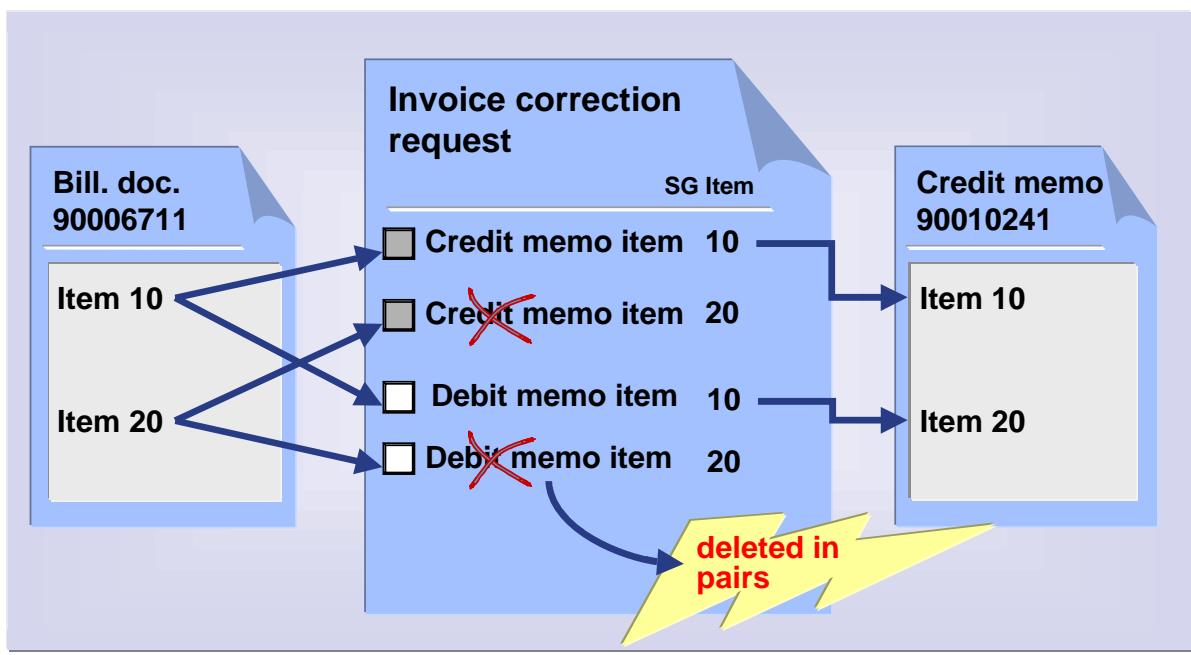
- You can create returns with reference to a billing document or an order. This means that the system receives all the required information, for example, on quantities and price agreements from the original document. In this way, the correct amount can be processed further.
- Enter an order reason for evaluation purposes.
- In returns processing there is an approval step, which is carried out by implementing an automatic billing block.
- When the goods have been returned to your warehouse, you post goods receipt on the basis of a returns delivery. Normally this is not carried out in the free stock, but in separate returns stock. This posting can be carried out either before or after the credit memo has been created.
- After approval of the returns (that is to say, after removal of the billing block), the credit memo and required accounting documents are entered by billing the transaction. The correct amount is automatically credited to the customer account. This step can be carried out independently of the inbound delivery of returned goods.

Invoice correction



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- You can use the invoice correction to carry out corrections to quantities or values, that have already been invoiced to the customer. An invoice correction request is always created with reference to the incorrect billing document.
- The customer receives a document, which lists the following: the original quantity and price, the correct quantity and price as well as the amount credited to or debited from the customer account.

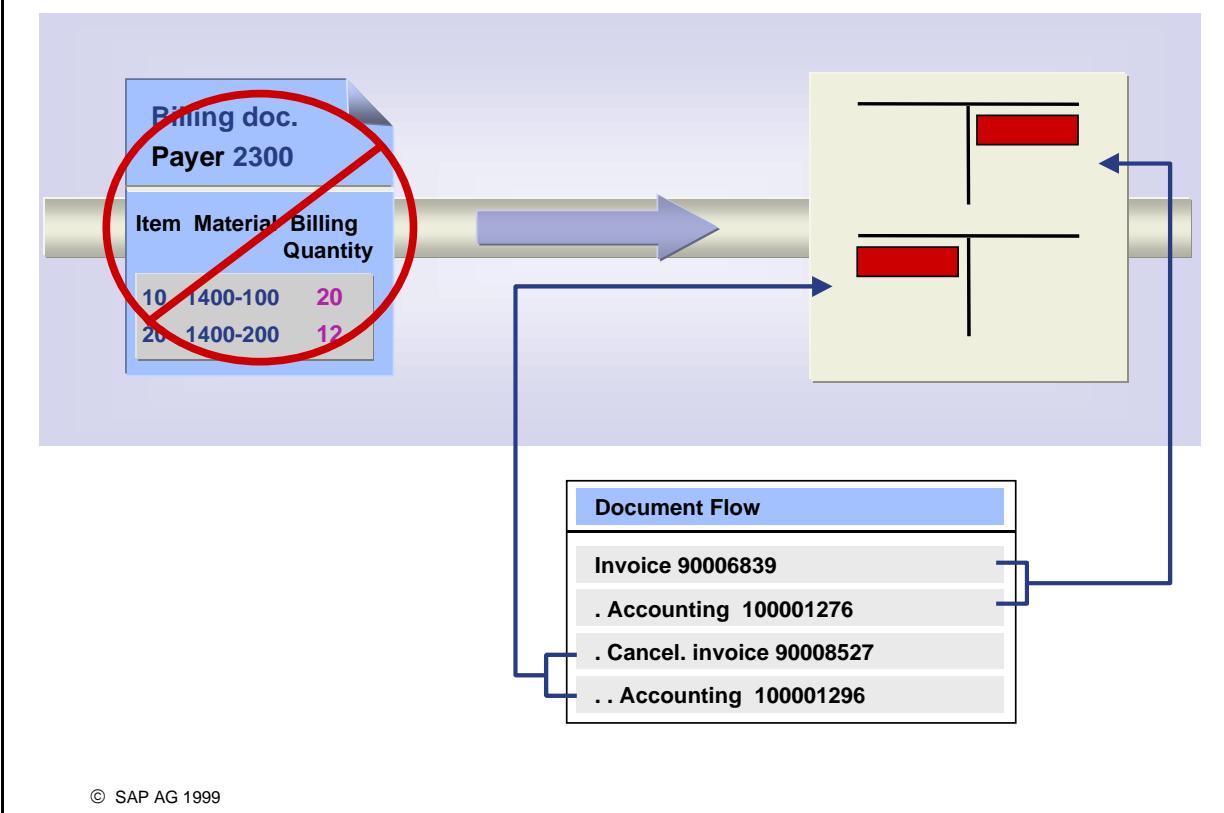


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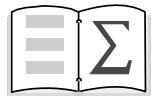
- A credit memo item and a debit memo item are created in the invoice correction request for every item in the incorrect billing document. At the start of processing the net value of the document is zero. In the document all credit memo items are listed and then all debit memo items.
- Changes can also be carried out on the debit memo items. The credited net values result in a difference between the credit memo items and the debit memo items.
- Credit memo and debit memo items are always deleted in pairs. You can delete all item pairs that have not been changed.

Cancelling a Billing Document

SAP



- Cancelling a billing document may be necessary, if the payment conditions or a payer's address has changed.
- An individual billing document (cancellation billing document) and a new accounting document are created. This sets back all postings from the incorrect billing document by posting every posting line again.



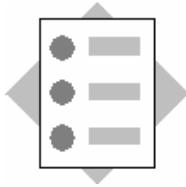
You are now able to:

- process a complaint relating to a sales and distribution process
- carry out the following sales and distribution processes and explain them in detail:
 - handling of returns
 - credit memo and debit memo processing
 - invoice correction
 - cancelling a billing document

Exercises

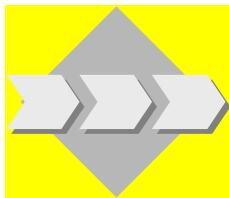


Unit: Returns and Credit Memo Processing



At the conclusion of these exercises, you will be able to:

- Process returns and credit memos



A customer buys headlights from you. After the headlights have been delivered to the customer and he has paid for them, the customer reports that one of the headlights does not work. You agree to credit the customer for the amount paid. Later, the customer makes another complaint about another headlight. You ask him to send the headlight back so that you can check this.

- 1-1 You sell headlights to a customer. Create the sales order, outbound delivery and billing document for this.

- 1-1-1 Create a **standard order** for the following customer purchase order.

Purchase Order	
Customer:	T-S50A##
Purchase order number:	9-111
Required delivery date:	in 10 days
<u>Material</u>	<u>Quantity</u>
T-AS1##	10

Save the order and record the document number.

1-1-2 Create an outbound delivery for the previous sales order.

Save the delivery and record the document number.

1-1-3 Pick the delivery and post goods issue.

Create a transfer order as a basis for goods movement in the warehouse and to print the picking list. Enter the transfer order for the outbound delivery from the previous task:

Warehouse number 010

Plant 1000

Foreground/backgrnd Background

Adopt pick. quantity 2 (Adopt picking quantity and post goods issue)

Note down the transfer request number.

1-1-4 Create the billing document for the outbound delivery from the previous task:

Save the billing document and note down the document number.

2-1 After the customer has received and paid for the materials, he realizes that one of the headlights is defective. You determine that this damage occurred during transportation. You agree that the customer will keep the headlight and be credited with the amount paid. Carry out credit memo processing.

2-1-1 Create a **credit memo request (order type G2)** with reference to the standard order from this unit in exercise 1-1-1 for a headlight.



You can create a credit memo request using the same transaction that you use for a sales order. Choose *Create with reference to the order*. Then choose *selection list* and change the quantity to 1 unit. Then choose *selection list* and change the quantity to 1 unit.

2-1-2 Enter **damaged in transit** as the order reason on the Sales tab page.

2-1-3 Save the credit memo request and note down the document number.

2-2 The credit memo request is reviewed and approved by the employee responsible.

2-2-1 Release the credit memo request for billing, by removing the billing block.



Change the credit memo request and remove the billing block on the *Sales* tab page or in the *Item overview*, by selecting the entry **Blank** in the F4 help.

2-3 After the credit memo has been released, it can be billed and the credit memo can be created.

2-3-1 Create a credit memo in response to the credit memo request.



To create credit memos, use the same transaction that you would use for creating billing documents.

2-3-2 Save the credit memo and note down the document number.

- 3-1 At a later date the customer reports that another headlight is defective. This time you want them to send the headlight back so that you can examine it and see what is causing the damage. The customer agrees to send the headlight back and be credited with the amount paid. Carry out returns processing.

- 3-1-1 Create **Returns** (**order type RE**) with reference to the standard order from this unit in exercise 1-1-1 for a headlight.



You can create a return using the same transaction that you use for a sales order. Choose *Create with reference to the order*. Then choose *selection list* and change the quantity to 1 unit. Then choose *Item selection* and change the quantity to 1 unit.

- 3-1-2 Enter **Returns** as the order reason on the Sales tab page.

- 3-1-3 Save the returns and record the document number.
-

- 3-2 The defective headlight has now arrived. Process the inbound delivery and goods receipt.

- 3-2-1 Create the returns delivery for the headlight that has been sent back.



You can create a return delivery using the menu path *Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Create → Single document → With reference to sales order*. Use shipping point **Z0##**.

- 3-2-2 Post goods receipt and note down the document number for returns delivery.
-



Post goods receipt while in the transaction *Create / change delivery*. Choose *Post Goods Receipt*.

- 3-2-3 Check the stock overview for the headlight in plant 1000 to make that that the headlight which has been sent back has been placed with other returned stock.



Inventory management is performed in materials management. Choose the following path for this: *Logistics* → *Materials management* → *Inventory management* → *Environment* → *Stock* → *Stock overview*. Choose plant 1000.

- 3-3 The returns are checked and approved by the employee responsible.

- 3-3-1 Release the returns for billing, by removing the billing block.



Change the returns and remove the billing block on the *Sales* tab page or in the *Item overview*, by selecting the entry **Blank** in the F4 help.

- 3-4 After the returns have been released, they can be billed and the credit memo for returns can be created.

- 3-4-1 Create a credit memo for returns.



To create credit memos, use the same transaction that you would use for creating billing documents.

- 3-4-2 Save the credit memo for returns and note down the document number.
-

4-1 Questions on Returns and Credit Memo Processing.

4-1-1 Can you create an outbound delivery for a credit memo request?

4-1-2 Do you have to create a credit memo request or returns with reference to a sales order or a billing document?

4-1-3 Why would you create a credit memo request or returns with reference to a sales order?

4-1-4 Which document would you create if there was a difference in price or quantity in the billing document?

4-1-5 Can you also create an invoice correction request with reference to a sales order?

4-1-6 Why do you need to enter an order reason for returns, credit memo requests or debit memo requests?

- 4-1-7 Before a credit memo can be created through billing, you may require approval for the credit memo request. Which field would allow you to do this?
-

- 4-1-8 After you have created a billing document, you see that the payer's address has changed. How do you change the address and start billing again?
-

Solutions



Unit: Returns and Credit Memo Processing

- 1-1-1 **Logistics → Sales and distribution → Sales → Order → Create**
Choose **Save**.

The document number is assigned by the system.

- 1-1-2 **Logistics → Sales and distribution → Shipping and transportation → Outbound Delivery → Create → Single Document → With Reference to Sales Order**

To enter the outbound delivery at an earlier date, set the selection date **20 days** into the future. Use *shipping point Z0##*.

Choose **Save**.

The document number is assigned by the system.

- 1-1-3 **Logistics → Sales and distribution → Shipping and transportation → Picking → Create transfer order → Single document**

The document number is assigned by the system.

- 1-1-4 Logistics → Sales and distribution → Billing → Billing document → Create. Choose Save.

The document number is assigned internally by the system.

- 2-1-1 **Logistics → Sales and distribution → Sales → Order → Create**

Order type **Credit memo request**

Choose **Create with reference**

Choose the **Order** tab page and enter the order number.

Choose **selection list**

Change the open quantity to 1 unit.

Choose **Copy**.

- 2-1-2 Choose the **Sales** tab page and enter **damaged in transit** in the *order reason* field.

2-1-3 Choose ***Save***.

The document number is assigned by the system.

2-2-1 ***Logistics → Sales and distribution → Sales → Order → Change***

Choose the **Sales** tab page or the **Item overview** and select the entry **Blank** for the field **Billing block** from the F4 help.

2-3-1 ***Logistics → Sales and distribution → Billing → Billing document → Create***

2-3-2 Choose ***Save***.

The document number is assigned by the system.

3-1-1 ***Logistics → Sales and distribution → Sales → Order → Create***

Order type **Returns**

Choose **Create with reference**

Choose the **Order** tab page and enter the order number.

Choose **selection list**

Change the open quantity to 1 unit.

Choose **Copy**.

3-1-2 Choose the **Sales** tab page and enter **Returns** in the *order reason* field.

3-1-3 Choose ***Save***.

The document number is assigned by the system.

3-2-1 ***Logistics → Sales and distribution → Shipping and transportation → Outbound delivery → Create → Single document → With reference to a sales order***

Enter the **returns number** in the **Order** field.

3-2-2 Choose ***Post Goods Receipt*** while in the create transaction.

The document number is assigned by the system.

3-2-3 Logistics → Materials management → Inventory management → Environment → Stock → Stock overview
Choose plant 1000. There is 1 unit in the returns stock.

3-3-1 *Logistics → Sales and distribution → Sales → Order → Change*

Choose the **Sales** tab page or the **Item overview** and select the entry **Blank** for the field *Billing block* from the F4 help.

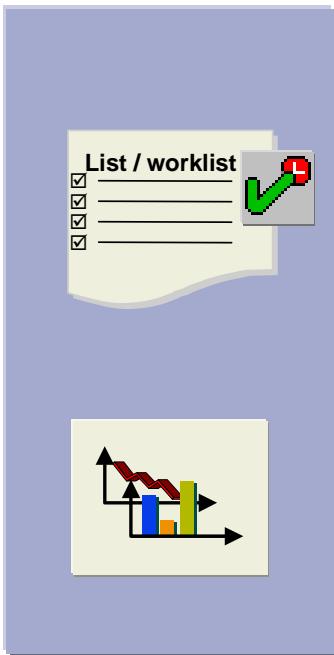
3-4-1 *Logistics → Sales and distribution → Billing → Billing document → Create*

3-4-2 Choose *Save*.

The document number is assigned by the system.

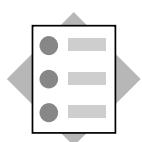
- 4-1-1 No. During credit memo processing no outbound deliveries or goods movements take place.
- 4-1-2 No. It is also possible to create a credit memo request or a return without reference to another document.
- 4-1-3 If you refer to a sales order when creating a credit memo request or returns, the system receives all required information such as customer data, material data, quantity and prices from the original document.
- 4-1-4 An invoice correction request is used to carry out corrections in billing documents referring to quantities or values.
- 4-1-5 No. An invoice correction request is always created with reference to a billing document.
- 4-1-6 You enter the order reason in order to be able to evaluate how many complaints have been created and for what reasons.
- 4-1-7 This can be done using the *Billing block* field. A billing block is put on the credit memo request. This prevents immediate or automatic billing. After the credit memo request has been approved, the billing block can be removed and billing can begin.
It is also possible to miss out this step. You can remove the billing block by changing the setting for the sales document type *credit memo request* in Customizing.
- 4-1-8 You can cancel a billing document, then bill again and carry out the changes there.

Contents:



Information sources in Sales and Distribution

- **Lists and reports**
 - online lists and online reporting
 - worklists
 - document flow
- **Sales Information System**
 - information structures
 - standard analyses

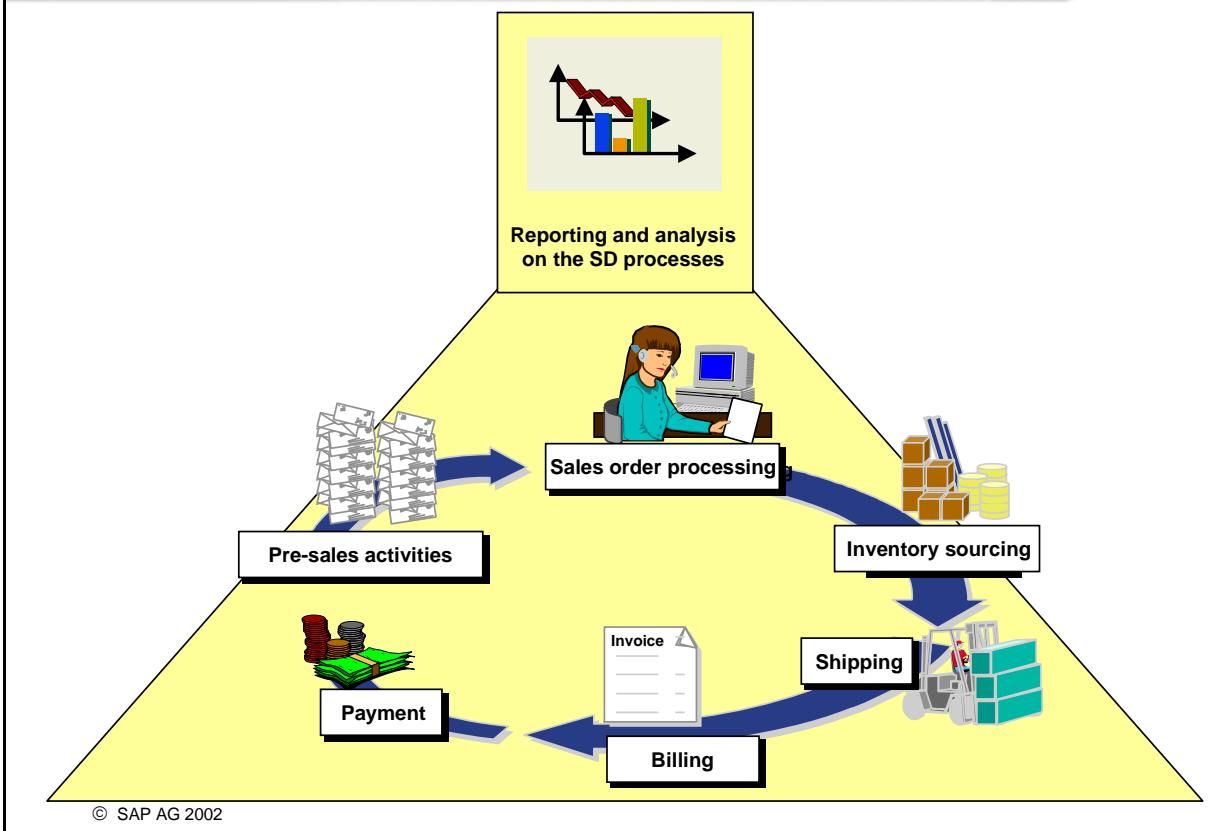


At the conclusion of this unit, you will be able to:

- **Describe the reporting and analysis tools in the SAP R/3 System**
- **Use list processing to locate transaction information and organize tasks**
- **Analyze SD information using the tools available in the Sales Information System (SIS)**
- **Define the components of information structures**

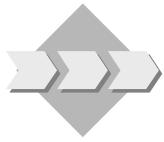
Reporting and Analysis: Overview Diagram

SAP

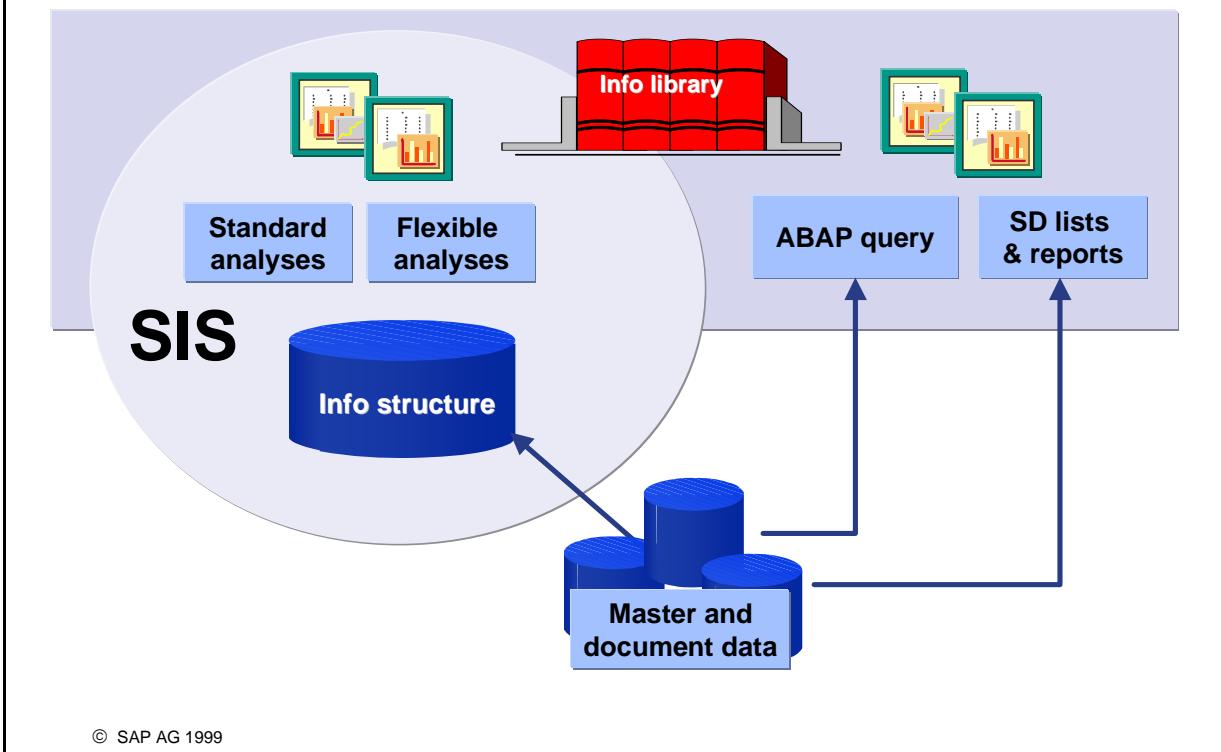


Reporting and analysis plays an important role at all levels of sales and distribution.

- It is, for example, necessary to determine and combine information at the individual document level.
- In addition, reporting and analysis functions are required to control certain processes in sales and distribution in order to intervene in time in the event of irregularities.
- Moreover, management needs reports that group together data from all business transactions within a certain period of time.



- IDES reviews all areas of its business to identify opportunities to reduce costs and improve efficiency.
- In order to ensure efficient sales order processing, open operations must be identified quickly and detailed information from documents has to be listed specifically.
- The sales order management team must respond to management requests for reports on key performance figures and transactions.



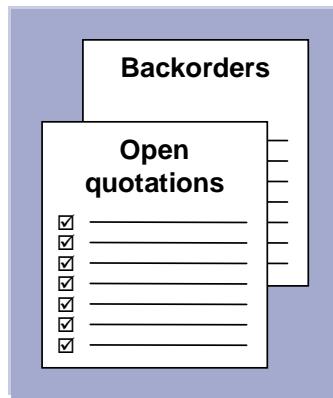
- The Sales Information System (SIS) belongs to Sales and Distribution. With SIS, you can compress data from sales documents to obtain information which will help you make strategic business decisions. SIS contains standard analyses as well as flexible analyses to help you evaluate statistical data.
- SAP provides list functions to create worklists in sales, delivery, picking, and billing.
- The Logistics Information Library allows you to integrate standard and flexible analyses as well as your own reports. You can structure and enhance the information library as you require.
- If the standard reports do not fulfill your requirements, you can use ABAP queries to extract information from the database into a report.

● Online lists

- provide data from documents
- display documents, for example,
 - for a customer or a material
 - with a specific status
- allow you to review and change documents



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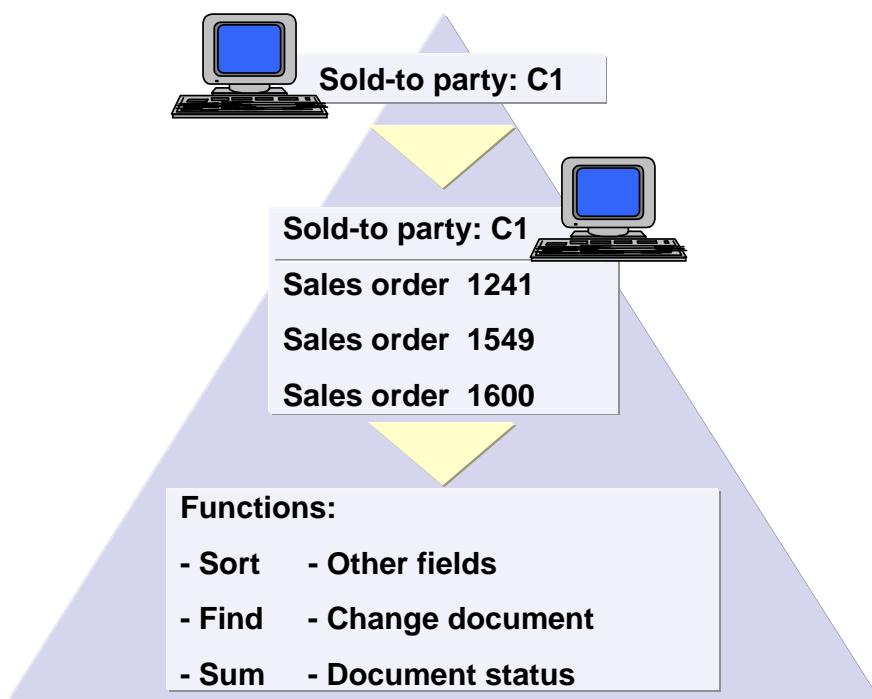
● Worklists

- display work that needs to be processed
- allow you to organize tasks into efficient work units

- The R/3 System provides lists to support the entire sales order management cycle.
- Lists fall into two categories.
 - Online lists:
Online lists display, for example, sales, delivery, or billing documents for a customer, a material, or a combination of both.
Other online lists display documents with a certain status that requires action from someone (for instance, all documents blocked for delivery).
 - Worklists:
Worklists allow you to select certain tasks in sales and distribution for processing. You select the tasks according to your area of responsibility and to various selection criteria (such as, date, organizational element, or customer).

Example: List of Sales Orders

SAP

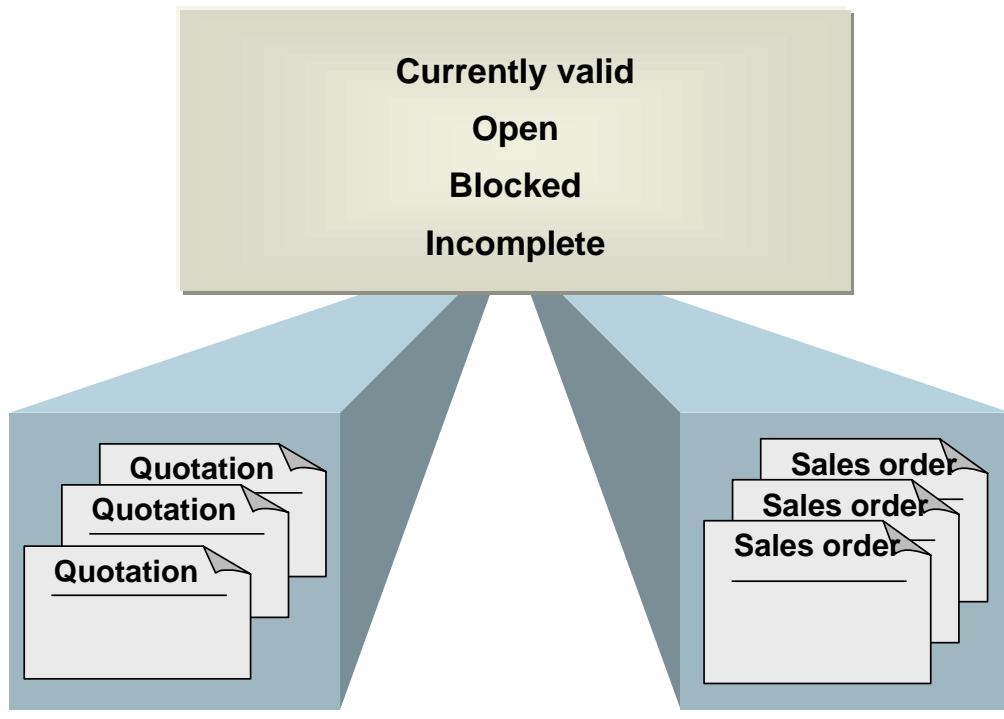


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- Enter the information you want to use to restrict the options on the selection screen. The R/3 System then displays a list of the relevant documents.
- You can edit the list further by
 - using filter, sort and sum up functions
 - adding or deleting additional fields (columns)
- From the list, you can also:
 - display or change a sales order and return to the list
 - display status information (overall status, delivery status, etc) for each document

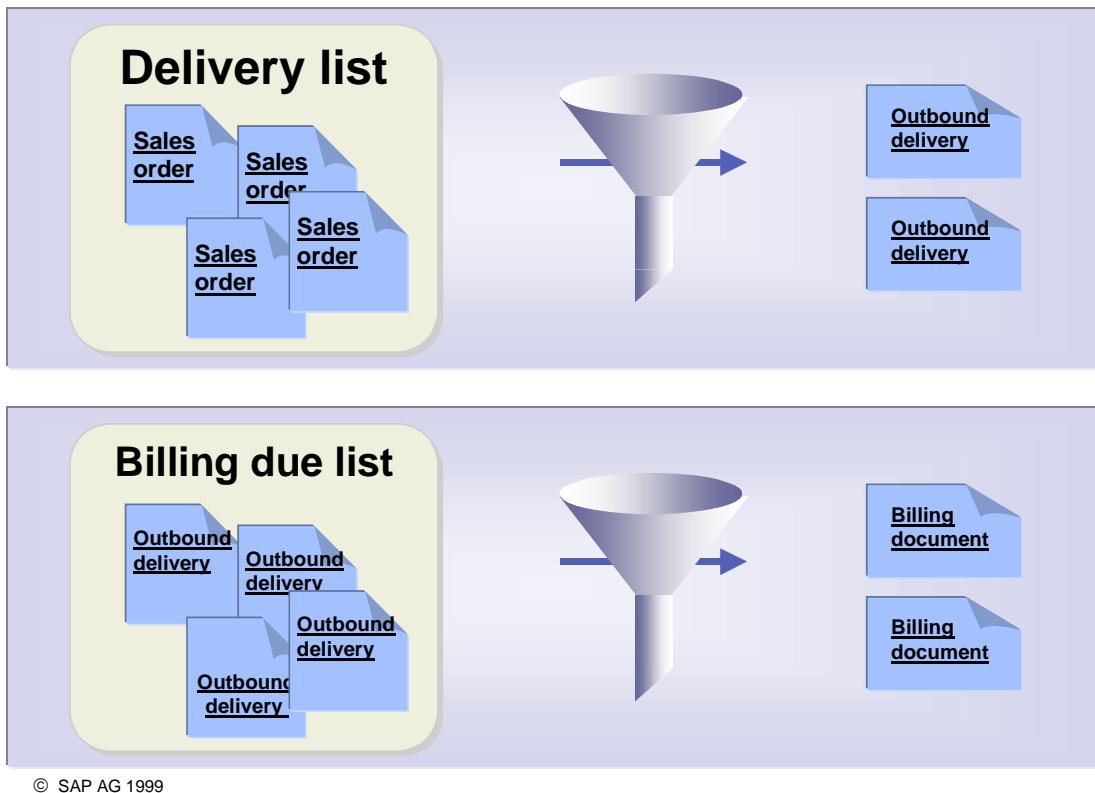
Example: Documents with a Specific Status

SAP

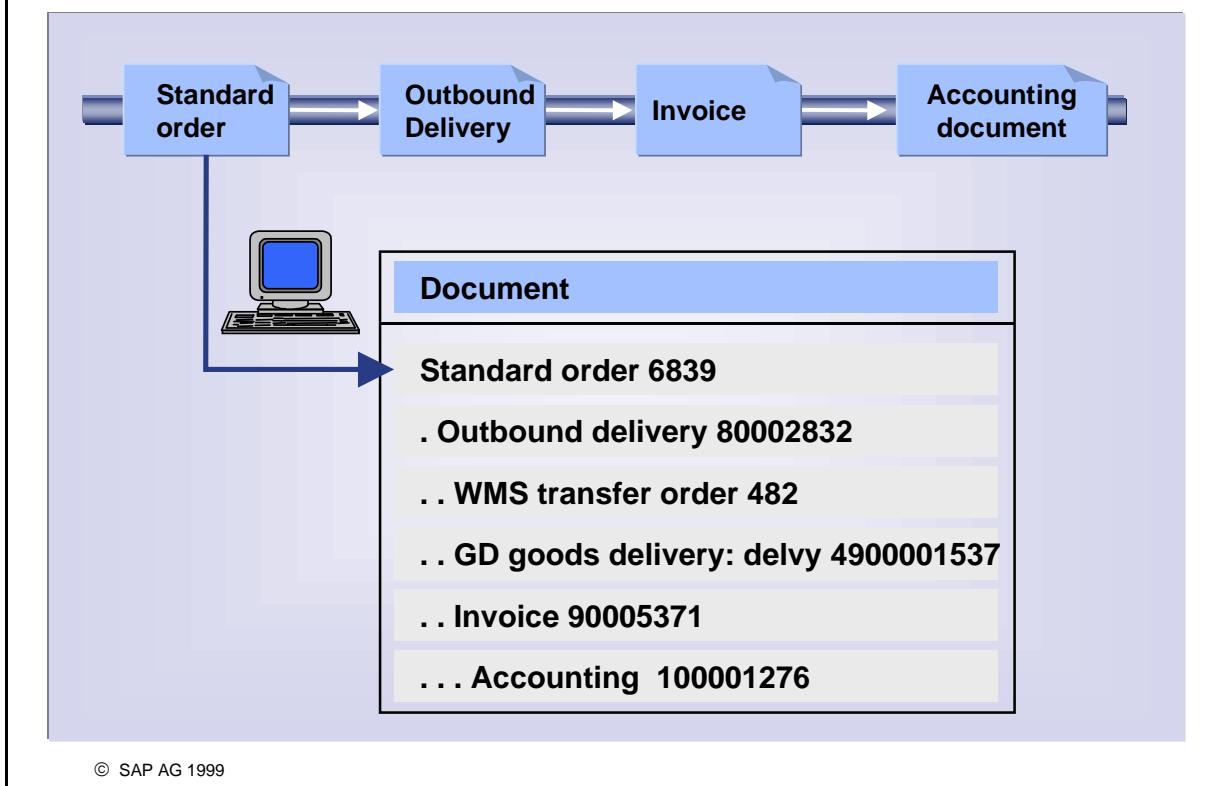


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- You can display document lists using the date and additional selection criteria. You can, for example:
 - display lists of the inquiries or quotations which are to be processed by a specified point in time
 - display lists of all sales orders that still have to be delivered
 - display lists of the incomplete sales and distribution documents in which important information for the subsequent process steps is missing



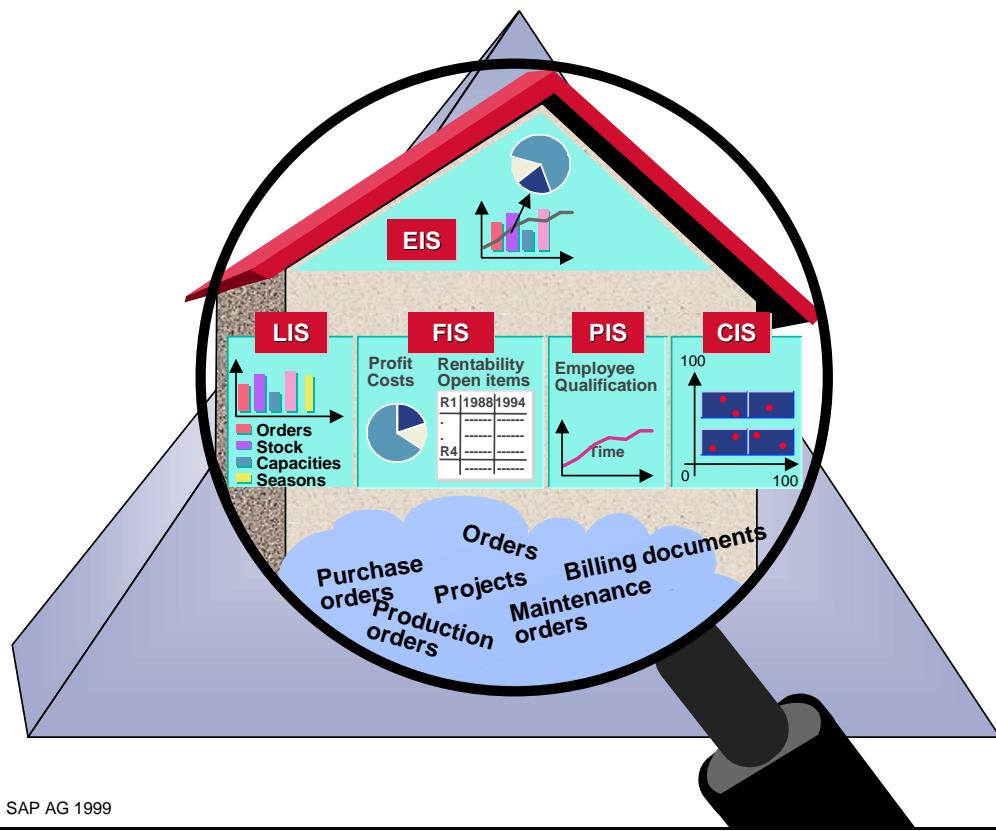
- The R/3 System provides tools that you can use to process various worklists.
- In the first step, you use specific criteria (for instance, date, responsible organizational unit, . . .) from all documents for processing. By doing this, you can organize the work to meet your business requirements.
- In the second step, the R/3 System processes this worklist. Tasks from various reference documents can be grouped together appropriately and multiple tasks from a previous document can be splitted into several documents.
- The Delivery Due List and Billing Due List are just two examples of work lists.



- The document flow is another online list function. It displays the history of related documents.
- Document flow tracks the progress of a sales order in order to respond to customer inquiries. It shows all documents associated with the sales order.
- You can select a document to display it and then return to the document flow.
- You can also display the status of the entire document and of each line item.

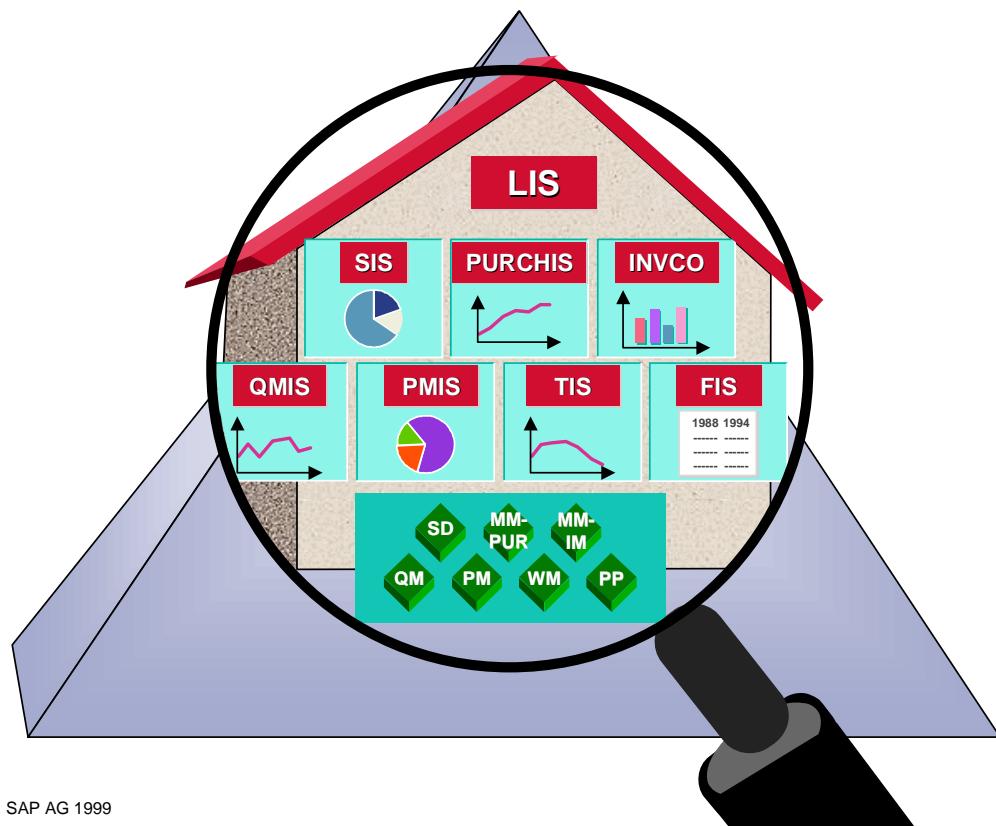
Sources of Information in the R/3 System

SAP

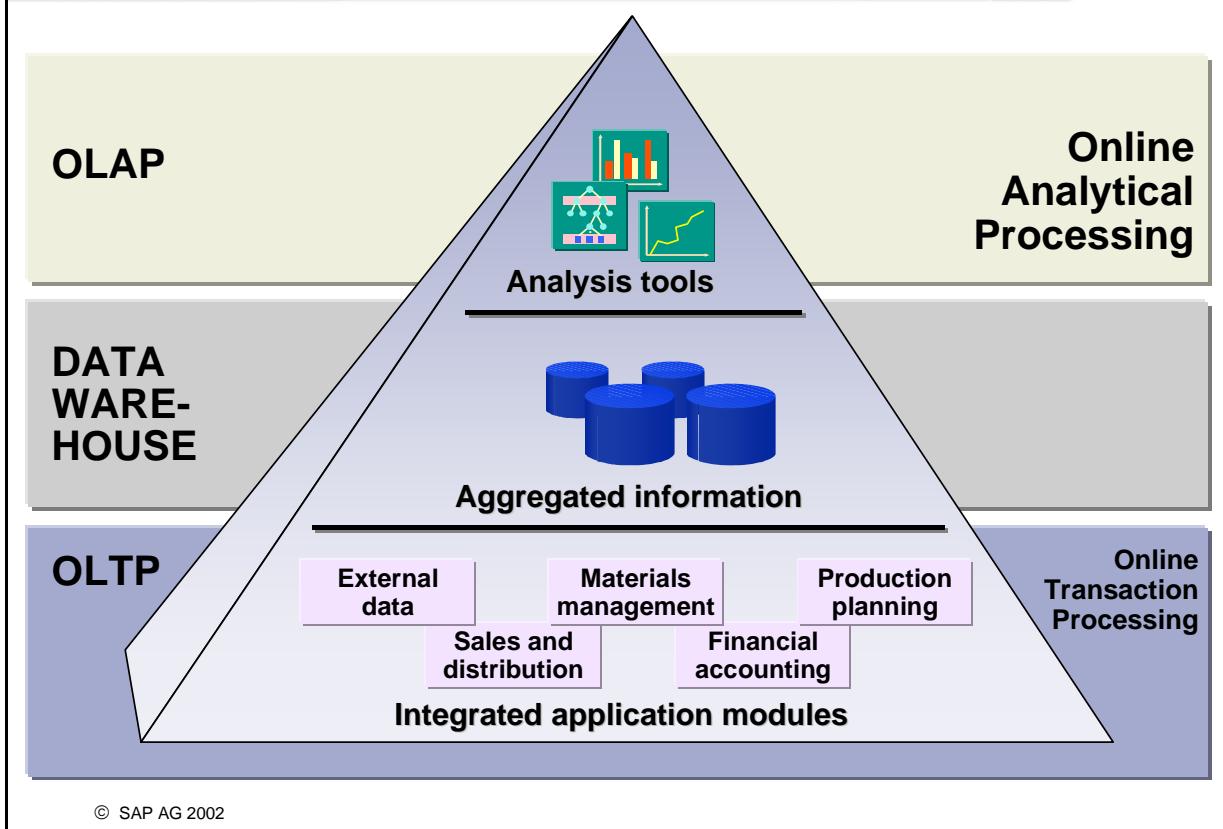


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- The SAP Open Information Warehouse allows you to view data from a variety of business perspectives.
- Decision makers can carry out multi-level analyses on data specific to one application or a variety of applications.
- The Logistics Information System (LIS) is used to review and analyze key figures throughout the entire Logistics area in the R/3 System.



- A series of application-specific information systems are available in LIS which have a standardized interface and similar basic functionality.
- The following information systems are available in Logistics:
 - SIS Sales Information System
 - PURCHIS Purchasing Information System
 - INVCO Inventory Controlling
 - TIS Transportation Information System
 - FIS Shop Floor Information System
 - QMIS Quality Management Information System
 - PMIS Plant Maintenance Information System

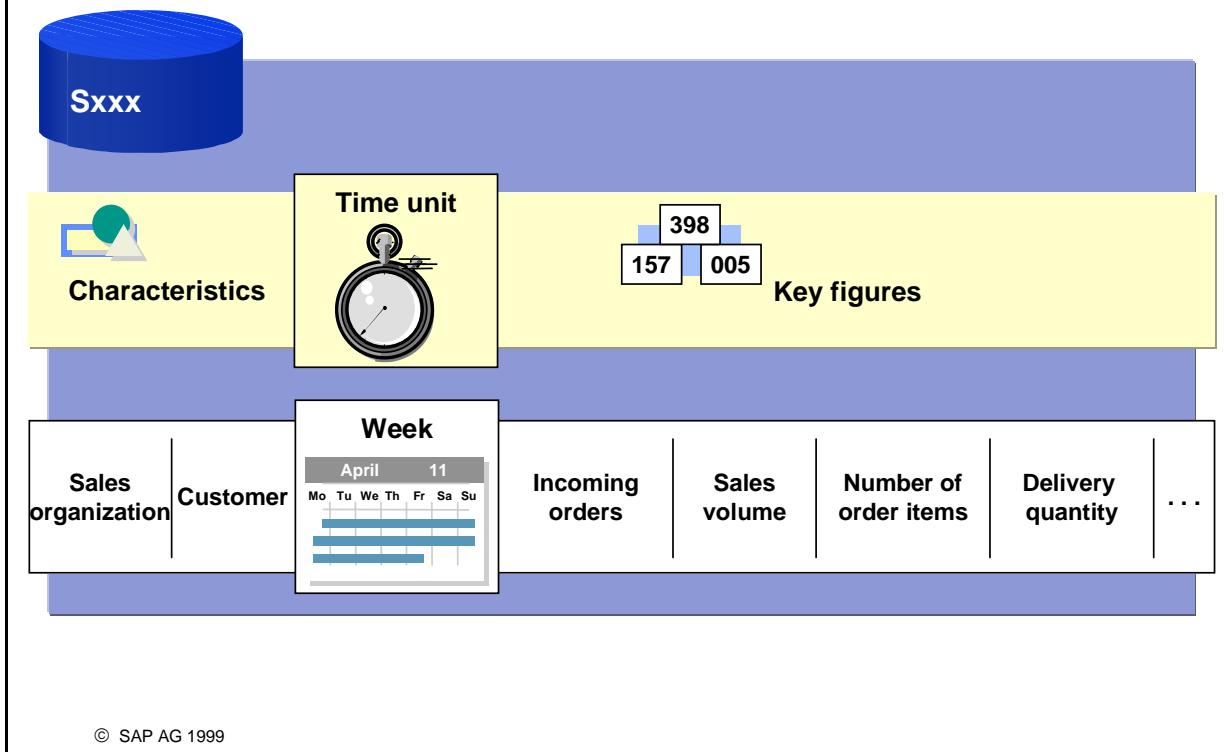


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- While you are using the transactions in the Logistics applications, the LIS updates relevant information. You can also update information from other systems in the LIS.
- The LIS aggregates and stores this information in the data warehouse. Data can be aggregated on a qualitative as well as on a quantitative basis:
 - quantitative reduction by aggregating on period level
 - qualitative reduction by selecting specific key figures
- You can then use the tools in the SIS to analyze this aggregated information. The aggregation leads to an improvement of the response times and of the quality of the resulting reports.

How Information Structures are Organized

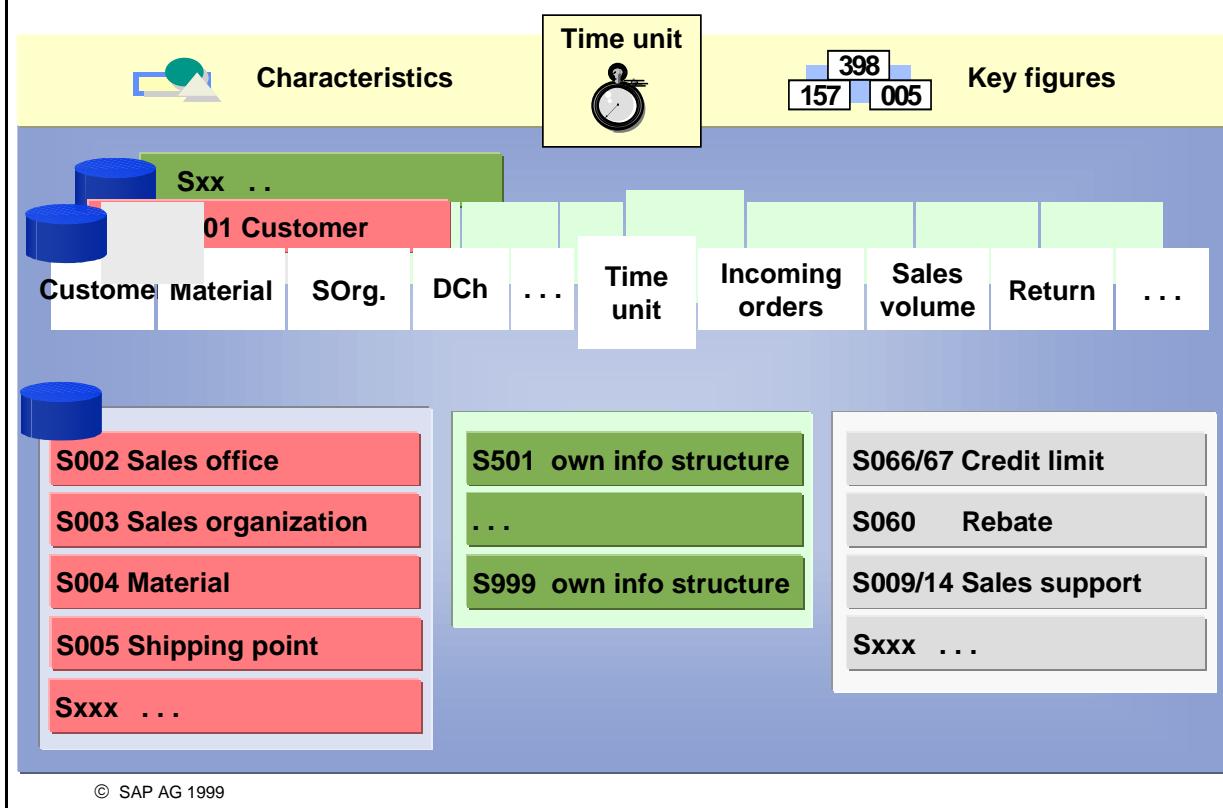
SAP



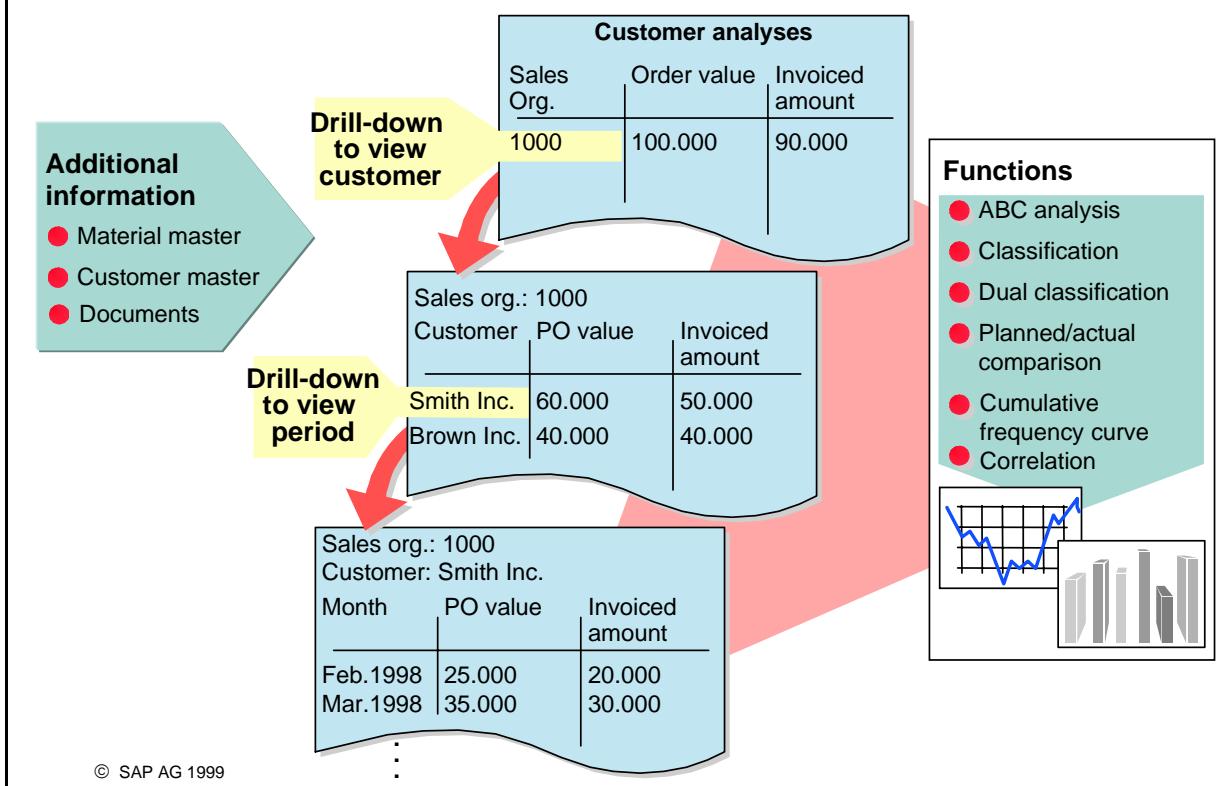
- The Sales Information System is based on information structures. These are special statistic tables which contain transactional data from the different applications. This data is constantly collected and updated by the system.
- Information structures contain three basic types of information:
 - **Characteristics** are criteria which you specify to collect data on a certain subject.
In SD, you normally require sales information on sales organizations, sales offices, customers, and materials.
 - A **period unit** is also a criterion used in information structures. You can collect data for a particular period, for example, for a day, a week, a month, or a posting period.
 - **Key figures** are performance measures. They provide important business information specific to a characteristic. Incoming order, sales volume, and returns, for example, are critical in SD.

Information Structures in Sales and Distribution

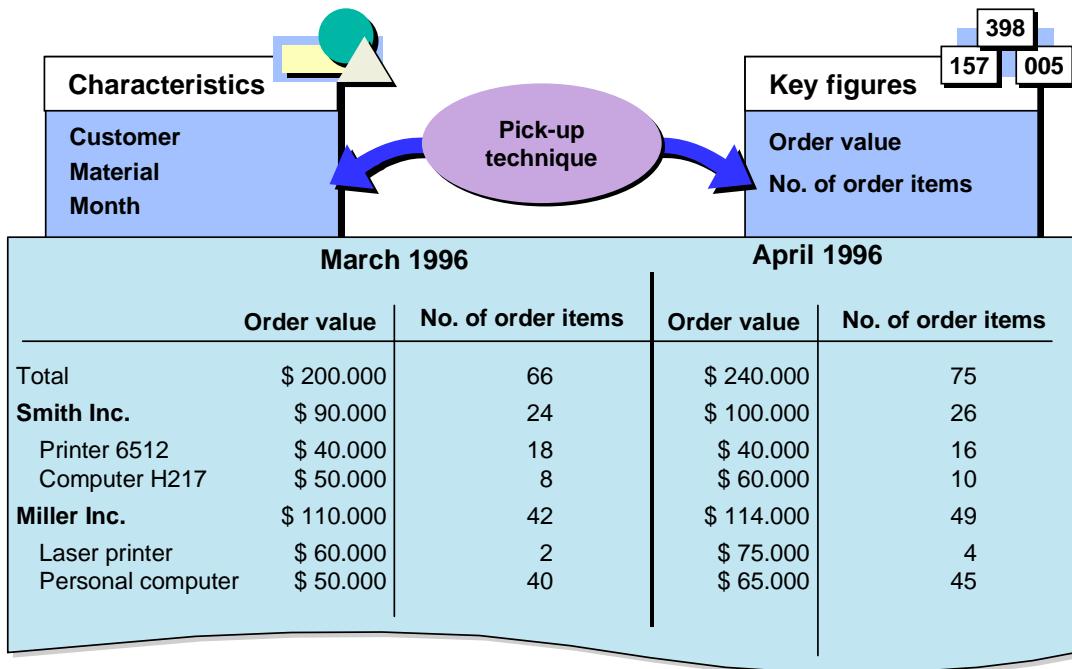
SAP



- There are several standard information structures for Sales and Distribution available in the R/3 System (for example, S001 to S006). You can use the standard analyses to evaluate data without having to make additional settings in Customizing.
- There are also information structures available in the standard system for internal use: for example, information structures for Credit Management, Rebate Processing, Sales Support, or for processing contracts.
- Alternatively, you can create your own information structures in Customizing using the name range S501 to S999.

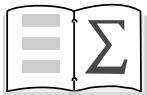


- Standard analyses provide extensive functions to create sophisticated presentations and analyses for the data.
- The analysis is based on the information structures. In the first step, you select the required data scope according to the characteristics and the period of the info structure. This data is displayed in an initial list. A variety of drill-down features are available in the lists. Each analysis can be saved.
- You can call up the standard transactions directly from the current analysis to display, for example, master data or document information.
- You can use a wide range of tools to analyze the selected data and present the results. These include cumulative frequency curves, ABC analyses, time series, correlation, Top N evaluations, and other tools for comparison.
You can then graphically display this data.
- In addition, the results of the analyses can be
 - printed
 - downloaded as a file to your local PC
 - downloaded into a spreadsheet program
 - sent to one or more employees using the SAP R/3 Office component.



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- Flexible analyses in the LIS allow you to determine the way in which data should be combined in an individual report procurement
- You define the form and the contents of the required list via the menu. The relevant program will then be generated in the background. The resulting list provides a variety of possibilities for interactive online processing.
- This procedure enables you to
 - combine characteristics and key figures from different information structures in one list
 - use your own formulas to calculate new key figures from existing ones
 - choose between a variety of layouts.



You are now able to:

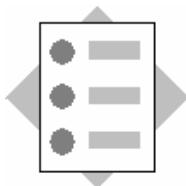
- **Describe the reporting and analysis tools in the SAP R/3 System**
- **Use list processing to locate transaction information and organize tasks**
- **Analyze SD information using the tools available in the Sales Information System (SIS)**
- **Define the components of information structures**

Exercises



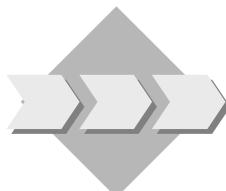
Unit: Reporting and analysis on the SD processes

- Lists and Reports



At the conclusion of these exercises, you will be able to:

- use SD analysis tools and adjust them to your requirements
- use lists to organize information on current business processes
-



IDES AG must ensure that all phases of sales order management are efficient and effective. To do this, they require instant access to lists and online reporting for customer service, shipping, and invoice processing activities. They also use lists to find important information if, for example, they don't know the actual document number.

Each department has specific lists they use; examples include preparing: lists of sales orders ready for delivery creation, lists of deliveries ready for picking and shipping, lists of shipped outbound deliveries ready for billing, and lists of blocked documents requiring special attention.

IDES AG must also answer customer questions regarding quotations, sales orders, outbound deliveries and billing documents. They must have immediate access to all aspects of customer activity and must be able to drill down to the actual document.

As a project team member, you will ensure that the R/3 System can provide the lists and online reports to support these requirements.

1-1 The sales and distribution departments require reporting and analysis for the current SD processes on a monthly basis at document level.

1-1-1 Check whether there are any open orders for the material **T-AS3##** for the current and the past month. Use a suitable list to do this.



Use the menu path:

*Logistics → Sales and Distribution → Sales → Information system
→ Orders → List of Sales Orders
Choose Open Orders*

1-1-2 Display a list of **all** orders that have been created for material **T-AS1##** in the course of this month.

1-1-3 Branch to an order and enter the employee Melanie Mayer (personnel number 1701) as a sales representative. Return to the list.



You can branch to an order by double-clicking on the entry.

1-1-4 Choose the display variant **order item**.



Choose *Settings → Display variants → Choose*

1-2 Process the list you executed in the last step according to your management's requirements.

1-2-1 Sort the list in ascending order based on sold-to party numbers.



Mark the *sold-to party* column and choose *Sort in ascending order*.

1-2-2 Restrict the list to standard orders.



Select the *Sales document type* column and choose *Set filter* Restrict the list to sales document to *OR*.

1-2-3 Determine the net value that has been obtained for this material in the given period of time.



Select the *Net value* column and choose *Display sum*.

1-2-4 Move the document number column to the left end of the list and delete the purchasing order column from the list.



Choose *Current* (or via the menu → *Settings* → *Display variants* → *Current*). Select the SD document entry and choose *Selected line in ascending order*.

Alternatively, you can move the items by using drag and drop.

1-2-5 Include the information on order quantity, plant and shipping point at the end of the list.



Choose *Current*. Select the last line. Select the relevant entries in the right table, choose *Show selected fields* then *Copy*.

1-2-6 Display subtotals for each sold-to party.



Mark the *sold-to party* column and choose *Subtotal*.

1-2-7 Optimize the column width.



Choose → *Settings* → *Columns* → *Optimize width*.

1-2-8 Save your processed list as a user-specific display variant with the name:
Layout **LO150-##** and the description **Order list ##**.



Choose → *Settings* → *Display variant* → *Save*.

1-2-9 Set your *display variant* as the initial variant.



Choose → *Settings* → *Display variant* → *Administration*. Select
your variant and choose *Set initial variant* and then *save*.

1-2-10 Return to the list of orders. Send the list to your instructor, and a copy to
yourself also, and add a short note to it.



Choose → *List* → *Save* → *Office*.
As recipient, enter the instructor's name and your name.

1-2-11 Call up the list using your variant and material T-**AS2##**.

*1-3 Questions on lists and reports

1-3-1 List examples of types of standard reports.

1-3-2 When would you use the online reporting functions and when would you use the Sales Information System reports?

1-3-3 When you process and display lists, what are some of the key features available when editing?

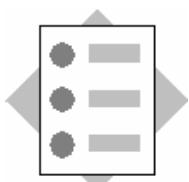
1-3-4 Name two types of work lists you generated in this course.

1-3-5 What is a *display variant*?

Exercises

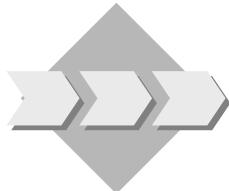


Unit: Reporting and analysis on the SD processes - Sales Information System



At the conclusion of these exercises, you will be able to:

- carry out cross-document analysis of sales and distribution processes
- carry out periodic evaluations using the tools of the Sales Information System
- use the tools for standard analyses
-



The IDES management requests analysis reports to analyze buying patterns, and to review the amount of business with each customer. On this basis, the production requirements can be planned. The project team has requested that it is possible to respond accurately and quickly to these requirements.

IDES reviews the overall performance of the SD department by analyzing the sales patterns within each sales organization. IDES is primarily interested in viewing the total value of incoming orders and the sales orders by customer. For planning and budgeting, IDES analyzes the value of sales by divisions and the value of sales by customer and material.

As a member of the SD project team, you will verify that the R/3 System can cover the requirements of the IDES management. You will run standard analyses using the Sales Information System and test the various reporting functions.

2-1 Selection for a standard analysis

- 2-1-1 Review the customer sales history for this month by performing a standard customer analysis for all customers in sales organization **1000** and distribution channel **12**.

Make sure that the entry field *Division* is blank.



Save your analysis as *selection version KA-##*.
Use the menu path:
Logistics → Sales and distribution → Sales information system → Standard analysis → Customer

You can store your selected data in a *selection version* for further analysis.

2-2 Carry out your customer analysis.

- 2-2-1 Change the settings in order to display the customer number and the customer name.



Choose → *Settings → Characteristic display → Key and description*.

- 2-2-2 Record the value of the incoming orders for customer **T-S50A##**. Do not leave the analysis.

Incoming orders **T-S50A##** _____

2-3 Characteristics and standard drilldown

2-3-1 Drill down the analysis to the bottom level. Record the criteria by which analysis is carried out.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____



In order to reach the next level of the drilldown, place the cursor on a characteristic in the left-hand column and choose *Detail*.



Choose → *Extras* → *Standard drilldown..*

2-4 Key figures Return to the Basic List screen.

- 2-4-1 Display a list of all possible key figures for your customer **T-S50A##**. Record two key figures with values that are not included in your display (for example, costs for incoming orders and sales volume).

_____ : _____

_____ : _____



Place the cursor on a value for a customer key figure for which you need the relevant information. Then choose Extras → All Key Figures
(Alternative: Double-click on the key figure).

- 2-4-2 Add the key figures **Incoming orders quantity** and **Invoiced quantity** to your standard analysis. They are important for your analyses. Record the number of billed units for your customer.

Invoiced quantity: _____



Choose *Choose key figures*. To add new key figures, you use the same process that you used to add fields to list displays in the previous topic.

2-5 Evaluations on standard analysis

- 2-5-1 Compare the two key figures **Sales** and **Invoiced Sales: Cost**. Record the totals for these two values and the percentage difference from both key figures.

Sales: _____

Invoiced sales: cost _____

%: _____



Select the *Sales* field.
Choose → *Edit* → *Comparisons* → *Two key figures*
→ *Invoiced Sls: cost*

- 2-5-2 Close the comparison. Change the display by displaying the data by materials.



Choose *Switch drilldown...* → *Material*

- 2-5-3 Create a Top 3 list of your materials by Sales, and dispaly the results as percentages and display the result using a graphic.



Choose *Top N* → 3
Choose → *Settings* → *Value display* → *Percent*

*2-6 Material analysis

2-6-1 Generate a material analysis for your materials in sales organization **1000** and distribution **12**.



Use the menu path:

Logistics → Sales and distribution → Sales information system → Standard analyses → Material

To select your materials, you can use the multiple selection and then the search term <k> old material ##LO150*.

2-6-2 Execute an ABC analysis for sales. Choose the following restriction:

A segment: **50 %** of sales

B segment: **30 %** of sales

C segment: **20 %** of sales



Choose → *Edit → ABC Analysis → Total Sales*

2-6-3 Display the overview of segments, return to the graphic and then display the total list.



Choose *Overview of segments.*

Choose *Total list.*

2-6-4 Display the results as a cumulative frequency curve.



Choose → *Edit → Cumulative curve*

2-7 Questions on the Sales Information System

2-7-1 What is the purpose of an information system?

2-7-2 What three kinds of information comprise an information structure?

2-7-3 Explain the term *Characteristic*.

2-7-4 Explain the term *Key figure*.

Solutions



Unit: Reporting and analysis on the SD processes

- Lists and Reports

- 1-1-1 *Logistics → Sales and Distribution → Sales → Information system → Orders → List of Sales Orders*
Open orders exist.

- 1-1-2 Enter *material number T-AS1##*.

- 1-1-3 Double-click on the order
Choose **Display document header details**.
Choose the **Partners** tab page.
Partner function: Sales representative
Personnel number: 1701

- 1-1-4 *Settings → Display variants → Choose*

- 1-2-1 Select the **Sold-to party** column.
Choose **Sort in ascending order**.

- 1-2-2 Select the **SalesDocTy** column.
Choose **Set filter**. Enter the sales document type **OR**.

- 1-2-3 Select the **Net value** column.
Choose **Display sum**.

- 1-2-4 Choose **Current**.
Select the **SD document** entry.
Choose **Selected line in ascending order** several times.

- 1-2-5 Choose **Current**.
Select the last line.
Select the relevant entries in the table on the right-hand side.
Select **Show selected fields** and then **Copy**.

- 1-2-6 Select the **Sold-to party** column.
Choose **Subtotal**.

- 1-2-7 → **Settings → Columns → Optimize width**.

- 1-2-8 Choose **→ Settings → Display variant → Administration.**
Select the **User-specific** field.
→ Save.
- 1-2-9 Choose **→ Settings → Display variant → Administration.** Select your **variant.**
Choose **Set initial variant**
- 1-2-10 Choose **→ List → Save → Office.**
- 1-2-11 **Logistics → Sales and Distribution → Sales → Information system → Inquiries → Inquiries list.**
The list is called with your display variant.
- 1-3-1 List of orders, quotations, inquiries, outbound deliveries, billing documents, list of incomplete documents, list of blocked documents, ...
- 1-3-2 Online reporting functions show you lists of transactions to enable you to access the documents or process the documents further. You use these lists in your day-to-day processing.
The Sales Information System allows you to analyze results across several business transactions. You can, for example, compare data for different periods and key figures. Management uses the SIS to generate detailed reports. This data can be used for further planning and development of new or improved sales strategies.
- 1-3-3 You can filter (restrict), sort, total and subtotal data. You can also add and delete fields on a list.
- 1-3-4 Delivery due list and billing due list
- 1-3-5 A variant is a variation of a report that is either delivered with the R/3 System or that you created and saved. Each variant would contain different fields that would contain data everytime you call up the report.

Solutions



Unit: Reporting and analysis on the SD processes

- Sales Information System

2-1-1 **Logistics → Sales and distribution → Sales information system
→ Standard analyses → Customer**

Enter the sales organization 1000 and the distribution channel 12.
Execute the analysis and save.

2-2-1 **→ Settings → Characteristic display → Key and description**

2-2-2 The values are in the *Total* line and the *Incoming orders* column

2-3-1 Sold-to party

Month

Sales organization

Distribution channel

Division

Material

2-3-2 **→ Extras → Standard drilldown**

The drilldown corresponds to the standard drilldown.

2-4-1 Place the cursor on the value for a key figure of the customer.

→ Extras → All key figures

(Alternative: Double-click on the key figure).

2-4-2 Choose **Choose key figures**.

(Adding key figures is carried out analogously to the topic Lists)

2-5-1 Select the *Sales* field.

**→ Edit → Comparisons → Two key figures →
Invoiced Sls: cost**

2-5-2 Choose **Switch drilldown...** → **Material**

2-5-3 Choose **Top N** → 3

Settings → Value display → Percent

Choose *Graphic*.

2-6-1 ***Logistics → Sales and distribution → Sales information system → Standard analyses → Material***

2-6-2 **→ Edit → ABC Analysis → Total Sales (%)**

2-6-3 Choose ***Overview of segments.***
Choose ***Total list.***

2-6-4 **→ Edit → Cumulative curve**

2-7-1 An information system allows you to compress data effectively. This results in specific analyses and reports for the multiple tasks of the various management levels. Using the information reports and analyses, you can manage results effectively and identify problems quickly (for instance, when threshold values are exceeded). On the basis of these reports and analyses, further planning can be carried out and new strategies may be developed.

2-7-2 Characteristics, key figures and period

2-7-3 Characteristics are what you are analyzing. The system compresses information from sales and distribution documents in the Data Warehouse based on these values.

Examples: sales organization ,distribution channel, customer or material.

2-7-4 Key figures are performance measures or statistics that have a special significance in your business.

Examples: incoming orders or sales volume.

