

Sales

Outstanding Features:

- ❑ SD Order entry and configuration capabilities are judged “best-in-class” by an independent consulting firm.
- ❑ SD Pricing capabilities are judged “world-class” by an independent consulting firm.
- ❑ Process integration with other R/3 System modules minimizes the work of data entry at every stage of the sales process while maximizing your opportunities for success.
- ❑ Advanced credit management capabilities minimize your risk.
- ❑ Sophisticated pricing keeps you flexible and competitive.

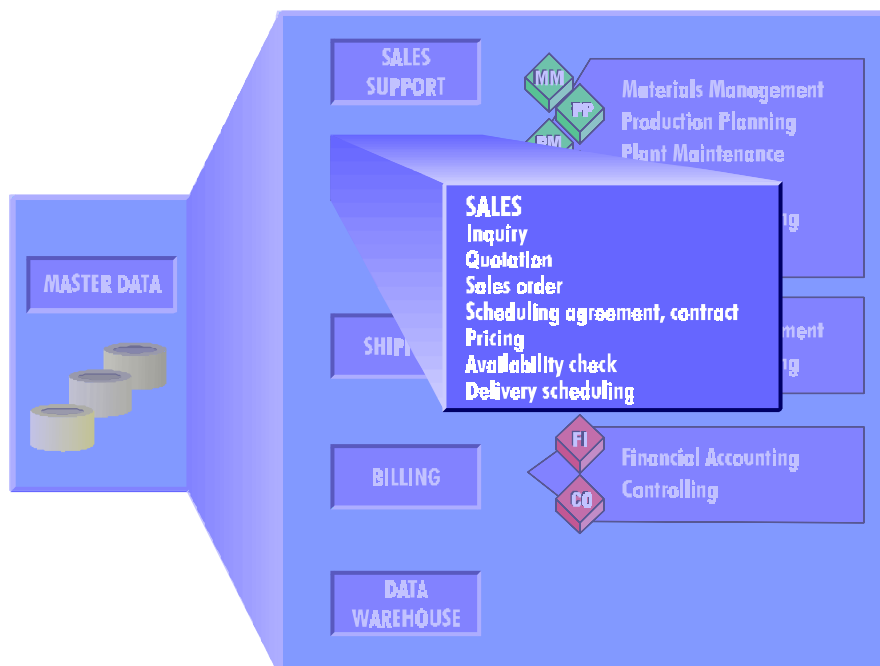


Fig. 5-1: Sales in R/3 SD

The sales department of any large organization carries out a wide range of activities, each involving a great deal of variation in and of itself. These range from processing requests for quotations (RFQs), quotations and sales orders to pricing, credit and product availability. Done poorly, any one of these steps can lose an order, or even spoil a good customer relationship.

In the best case, all the actions noted above and many more take place in a smooth progression. One process is linked to the next, data entry is minimal and opportunities for error are all but eliminated. You can accomplish this through the use of R/3 SD in sales. Analysts have called R/3 SD order entry, configuration, and pricing “outstanding” — and that was before the addition of more SD capabilities now available to you.

R/3 SD sales processing provides:

- ☐ processing and monitoring of inquiries (RFQs), quotations and sales orders
- ☐ extensive copying functions to minimize errors and redundant effort in order entry
- ☐ user-defined document types for all sales documents
- ☐ available to promise (ATP) checking
- ☐ delivery scheduling
- ☐ shipping point and route determination
- ☐ pricing that includes tax determination in local and foreign currencies
- ☐ customer credit checking

Whether your sale is simple or complex, SD has the capabilities to meet your needs. SD supports most common transactions and processes effortlessly. But even if your needs are more complex, you can easily personalize the system to your satisfaction. R/3 SD is fully integrated with other segments of the R/3 System, including financial accounting, production planning, service management, project management, materials management and quality management. Your SD transactions are real-time.

Inquiry and Quotation

Inquiry and quotation documents serve as guides to crucial pre-sales processes, and also provide repositories for this business data. You use an inquiry in the system when a customer requests information on products or services. These documents provide important information about the prospective customer. You move information from inquiries or quotations quickly and easily into sales documents when the sale takes place. In the meantime, SD includes a range of functions for managing and monitoring these documents. You analyze pre-sales documents to gauge market trends, analyze lost sales, and build a basis for planning and strategy.

SD provides analysis tools for reviewing inquiries and quotations entered in the system. Using selection criteria you can limit the list to those of interest to you.

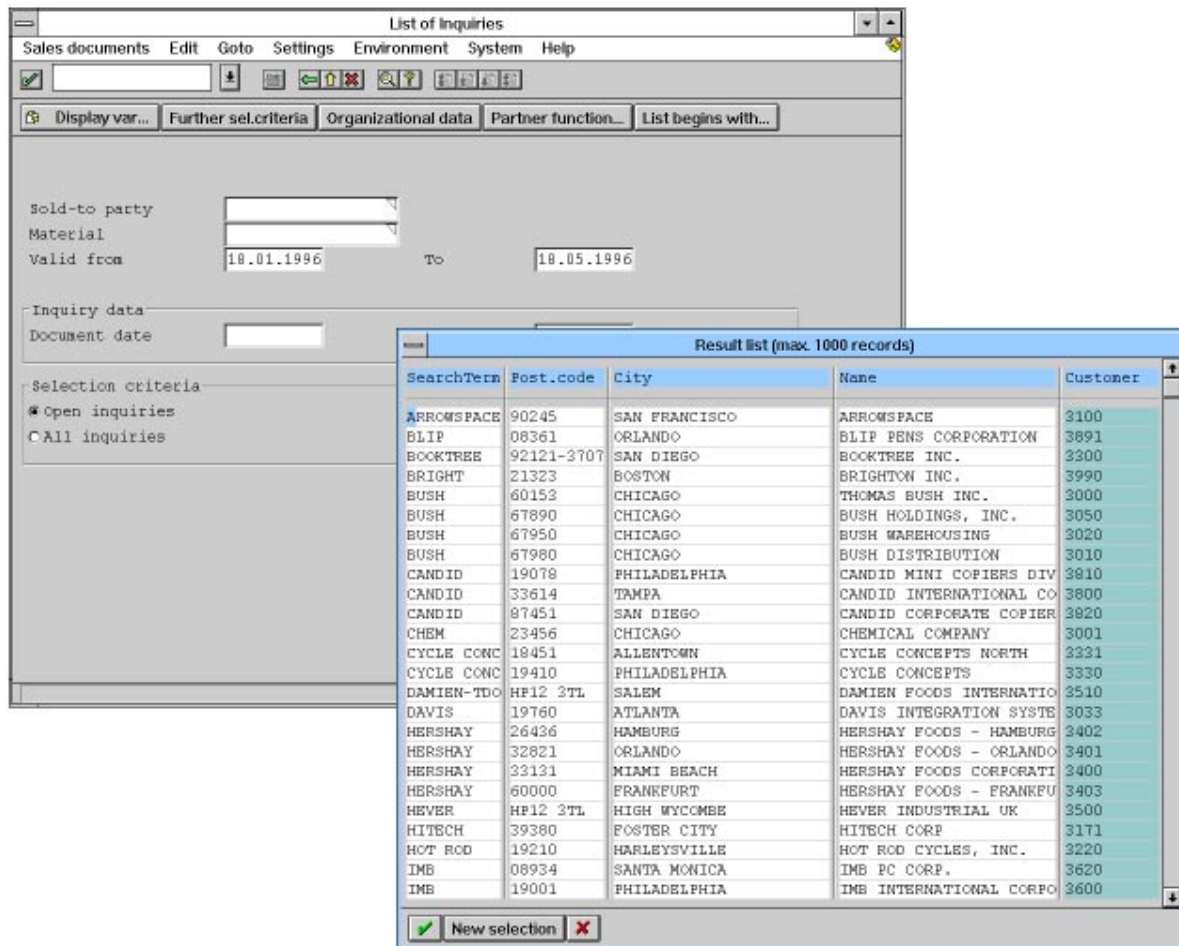


Fig. 5-2: List of Inquiries to Process

Inquiries and quotations have a date until which they are valid, and after which the terms expire. SD helps you monitor and evaluate documents using the “valid to” date. Monitoring helps you ensure that the inquiry or quotation receives timely attention. SD helps you plan and carry out appropriate responses to these documents while respecting deadlines.

“Valid-to” Date

You can enter textual descriptions of products in sales documents rather than a product number. You add the product number at a later point in time. For example, a customer calls to place a complex order. Your order entry person cannot immediately identify the products and temporarily stores a general description of the customer’s requirements as text until a technical person can identify the appropriate products.

Text Items

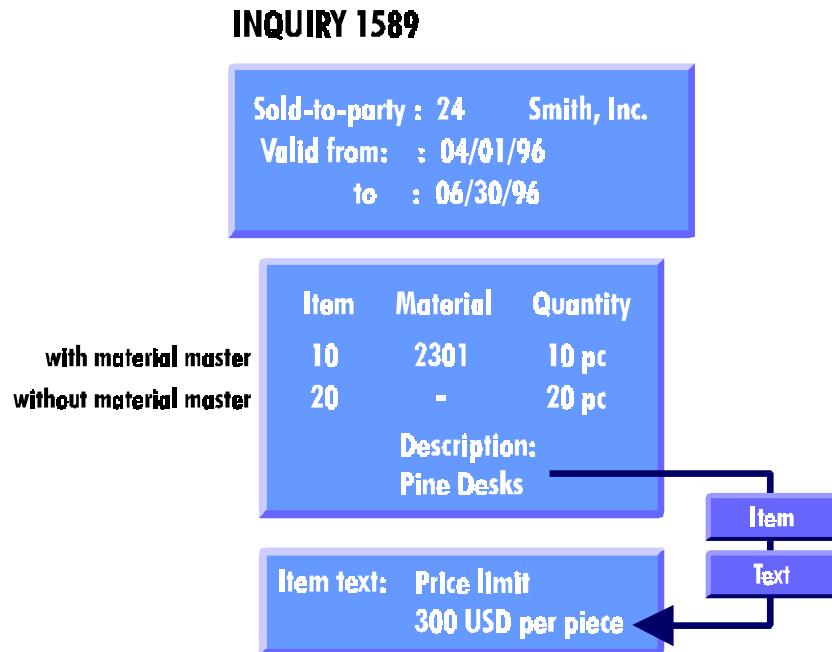


Fig. 5-3: Example Item Text in an Inquiry

Alternative Items

When building a quotation for a product or products, you identify multiple options which contain different pricing terms and delivery lead-times. If the quotation leads to an order, you instruct the system to confirm the alternative requested by your customer.

Sales Orders

R/3 SD helps you process sales orders differently, depending on your specific needs. Enter a sales order with many items in a single screen, or place a complex order using an expanded order view — the system adapts to your needs.

Data Proposed from Master Records

SD automatically proposes appropriate existing data from relevant master records:

- ☐ SD proposes sales, shipping, pricing, and billing data from the customer master record.
- ☐ The system automatically proposes data from relevant product master records for each product in the sales order. This includes data for pricing, delivery scheduling, availability, taxes, weight, and volume.
- ☐ SD also proposes appropriate data from customer/product information records.

When data proposed by SD is appropriate, it can serve as the basis of your sales order, saving you time and ensuring accuracy. If necessary, you can add or modify data. If your pricing policy allows you to manually change discounts within a specified range, SD allows you to do it. You can also branch to related screens to display and modify data such as payment terms and delivery data.

Changing Proposed Data

Item	Material	Order quantity	Un	S	Description
10	CK-701	10	BOX		Double Chocolate Chip Cookies
20	CK-702	10	BOX		Chocolate Chip Cookies with Hazelnuts
30	CK-710	20	BOX		Vanilla Wafers

Fig. 5-4: Order Entry

You branch to appropriate detail screens with a mouse click to make changes in the order header or in specific items. Detail screens include all data for a particular functional area. For example, SD maintains a screen for sales details, a screen for pricing details, and so on.

Detail Screens

R/3 supports high-volume order entry, which means you can enter a 500-line sales order instead of breaking it down into smaller transactions. And if you need to move quickly to a specific product or customer part number within that order, R/3 SD will get you there.

High-Volume Order Entry

Even in the largest sales orders, SD can treat each line item like a separate order.

Item Independence

You define what constitutes a “complete” document in SD. This means you can define what data must be entered when your order entry staff “completes” a new sales order. When orders are not complete, SD maintains a log of these incomplete documents. You call up this list to determine which ones require further effort. Once you define the rules for identifying a complete order, SD requires all of this data before your staff can carry out subsequent activities such as delivery and billing.

Incompletion Log

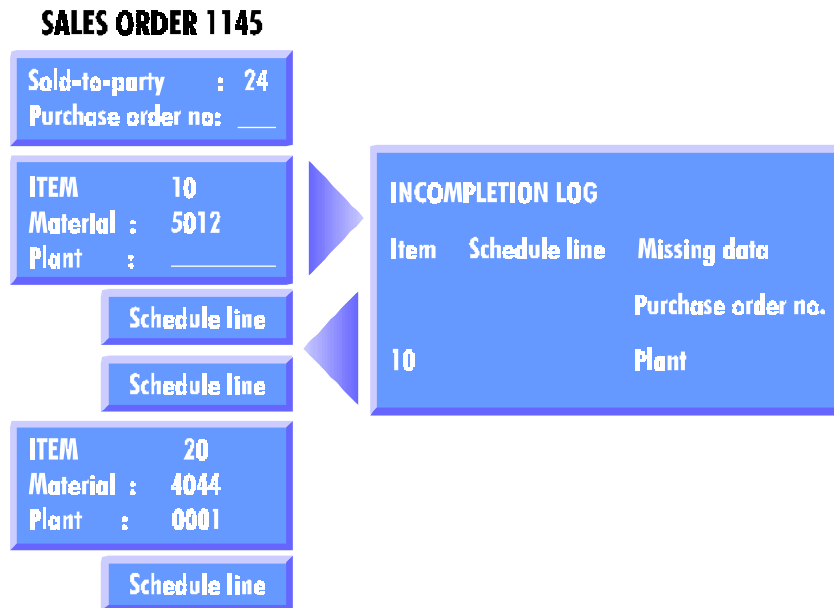


Fig. 5-5: Incompletion Log

Order Entry Tools

R/3 SD provides several tools to speed the order entry process:

- ☐ copying function
- ☐ product proposals
- ☐ customer point of view

Copying Data

One way to initiate a new sales order is by referencing an existing document. If a customer accepts your quotation, SD copies all the relevant data from the quotation when you initiate the sales order. Copying reduces both order entry time as well as opportunities for errors.

Product Proposals

You can identify frequently occurring product combinations and common delivery quantities in product proposals. By referring to an existing product proposal during order entry you again save time and reduce the chance of error. If you assign a product proposal to a particular customer, complete with the products and configurations that customer usually orders, when you enter a new order for that customer, the system can propose that list of products and configurations. Where a specific product should be ordered with other items such as spare parts or accessories, a product proposal provides a default grouping to save order entry time and effort.

PRODUCT PROPOSAL

Search term : Spare parts		
Validity period : 01/01/96 - 12/31/96		
Product proposal : 56000008		
Item	Material	Quantity
10	4404	40 pc
20	4410	50 pc
30	5001	30 ca

SALES ORDER

Sold-to-party : 24 Smith Inc.		
Item	Material	Quantity
10	4404	40 pc
20	4410	50 pc
30	5001	30 ca

Matchcode

?

Fig. 5-6: Item Proposal

Some customers order goods using their own product number. The System can maintain this information, which allows you to manage sales orders from the customer point of view. Instead of entering the product number used in your company, you enter the customer's product number. The system automatically determines the corresponding internal product number.

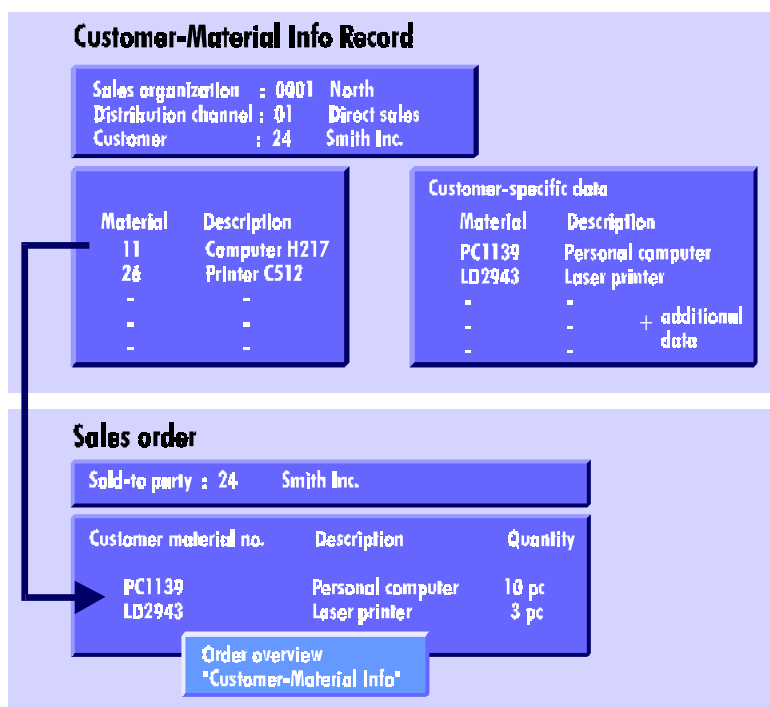
Customer Point of View

Fig. 5-7: Purchaser Point of View Order Entry

Outline Agreements

The R/3 System includes two types of long-term, or outline sales agreements. These include scheduling agreements and contracts. Scheduling agreements specify delivery quantities and dates. Contracts specify quantities and prices.

Contracts

A contract specifies that your customer will order a certain quantity of product from you during a specified period. The customer fulfills a contract by placing orders, called release orders, against it. The system uses release orders to initiate deliveries on the appropriate day for shipping. When you initiate release orders for a particular contract, SD automatically updates remaining quantities shown in the contract. R/3 provides general contracts, as well as more specific rental contracts, and service and maintenance contracts.

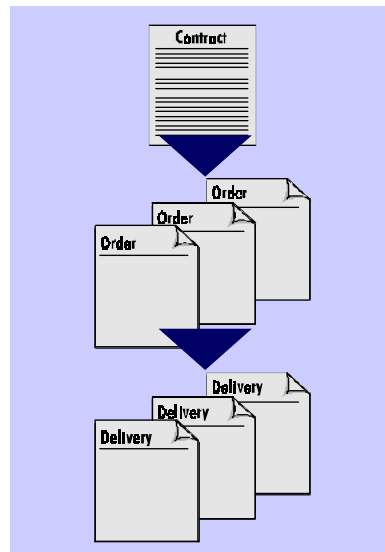


Fig. 5-8: Contract Document Flow

Service and Maintenance Contracts

Integrating service management into the logistics chain can provide your organization with a superior tool to generate revenue, reduce costs, maintain customer satisfaction, and maximize profitability. Within R/3, the Service Management application can be fully integrated with functionality from other R/3 application areas including controlling, materials management, plant maintenance, sales and distribution, and human resources. The main components of service management include service

contracts, installed base management, warranty, call management, resource-related billing and billing.

R/3 SD supports rental contracts and service and maintenance contracts. When a customer buys equipment and purchases a service, you can store the contract in the R/3 SD module. It is then used by the Service Management (SM) module, which provides ongoing support for installed equipment. Order entry staff enter contract-specific data, including start and end dates, cancellation terms, price agreements for service and spare parts, billing plans and follow-up actions. R/3 SM plans and processes the maintenance. It also arranges for a technician to make the necessary routine service calls. Information reported in the SM module is used to create an invoice, if necessary, for parts and services not covered by the service contract.

Service Management

R/3 Service Management allows you to select your own logical and physical groupings for serviced devices within an organization. You can structure your service in a manner that makes the most sense for your industry. You can easily search for equipment located at a customer site, including third-party devices at a customer site. You can easily add or remove devices from this installed base tracking system. You can also create an equipment master record, including anything from only crucial information on each device, to great levels of detail on manufacturer data, physical location, usage, serial number and end-user data.

Installed Base Management

Effective service requires call management that allows your service center to respond to customers in a prompt, efficient manner using tools to make their job easier. In R/3, these tools include fully integrated call logging, call handling and call closing processes. These include an escalation scheme which alerts and routes transactions that require immediate attention. This module emphasizes problem resolution.

Call Management

In cases where service is billed to the customer directly, is only partly covered by a service contract, or where service is part of a project, R/3 uses resource-related billing. Where service is covered by a service contract, the system will bill the customer only for the portion payable by the customer.

Resource-Related Billing

Where maintenance or rental contracts require periodic billing, you can create a billing plan in R/3 which generates periodic bills on the billing due list for invoicing.

Billing Plan

After resource-related billing is complete, R/3 invoices the customer, determines revenue, and conducts profitability analyses.

Billing

A manufacturer and vendor of photocopier machines rents a number of copiers to a customer, including a service contract in the deal. The copiers are installed at the customer sites and the vendor issues a warranty to cover the machines for one year. If any of the copiers break down, malfunction or generally require servicing, the customer logs a call with the vendor, who can then:

Service Example

- ☐ explain to the customer what measures need to be taken to restore the machine to full working condition
- ☐ send the relevant parts or spares to the customer, who installs them
- ☐ send a technician to repair the machine on site if necessary

Using Service Management, the copier manufacturer can record the entire process of call management, from the time the customer initially logs the call, through planning and procuring the necessary resources, to call completion and billing the services performed.

The copiers can be structured using the full range of functionality (pieces of equipment, functional locations, materials, and bills of material), and any changes made in the equipment configuration can be represented. The partners involved, both internal service personnel and external contact persons, can be represented using functionality from Human Resources (HR), SD, and MM.

The costs incurred by the service activities performed can be invoiced to the customer, or accounted for using rules determined in the customer contract.

Scheduling Agreements

Scheduling agreements contain specific order quantities and delivery dates. Each delivery has a separate schedule line in the agreement. You fulfill a scheduling agreement by creating the deliveries as they come due. You process deliveries for a scheduling agreement just as you would any normal delivery. System functions include a full range of pricing and availability check capabilities. Component supplier scheduling agreements provide specific added functionality for that industry.

Data that applies to the entire document appears in the header. Data about products appears at the item level. SD initiates schedule lines for each item in a scheduling agreement. You can specify shipping dates for each schedule line by day, week, and month.

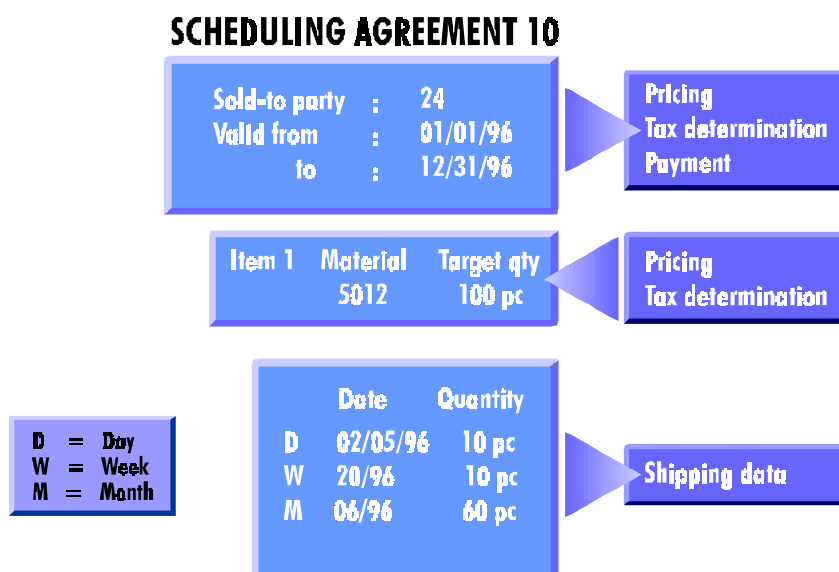


Fig. 5-9: Scheduling Agreement Data

Component Supplier Scheduling Agreements

Component suppliers such as automotive manufacturers have special requirements for business and data processing. To accommodate these requirements, R/3 SD includes several features for scheduling agreement processing.

Scheduling agreements with component suppliers specify delivery quantities and dates for a specified period of time. These materials are released using schedule lines. In practice, new delivery schedules are placed frequently and amended often. R/3 SD supports EDI and paper fax relay of JIT (just-in-time) delivery schedules, including automatic EDI updates of JIT schedules.

Cumulative quantities are essential for gaining an accurate picture of the delivery schedule situation because they clearly display changes made to ordered quantities and dates. R/3 SD provides cumulative quantities, which can be used from both the component supplier and customer points of view. Cumulative quantities can be reset to zero at the end of each fiscal year.

You can define in the scheduling agreement the date or cumulative delivery quantity for which an engineering change status (ECN) is sent to a customer.

You can store external agent information in the R/3 system and integrate them into your information flow for bills of lading, delivery notes and other information, using EDI.

**Component Supplier
Cumulative Quantities**

**Component Supplier External
Agents**

Component Supplier Output Control Output control integrates output information, including goods issue/receipt slips, delivery notes, credit memos and invoices.

Component Supplier Display Functions Display functions for scheduling agreements make it easy for you to quickly access information on the processing status of your component supplier agreements.

Functions for component supplier scheduling agreements provide a number of alternative choices for creating, copying and changing delivery schedules and Just in Time (JIT) delivery schedules.

Delivery Scheduling and Availability Check

Delivery Scheduling

Timing of a delivery is of great importance to customers, and may even affect their decision to buy a product or service. For this reason, R/3 SD automatically determines delivery scheduling at order entry. Delivery scheduling includes all activities which must take place before goods are delivered. Delivery scheduling determines the product availability date and the loading date. You enter the customer's requested delivery date, and SD computes shipping activity dates. The system determines when the product must be available, and when picking, loading, and transportation scheduling must take place to meet the customer's requested delivery date.

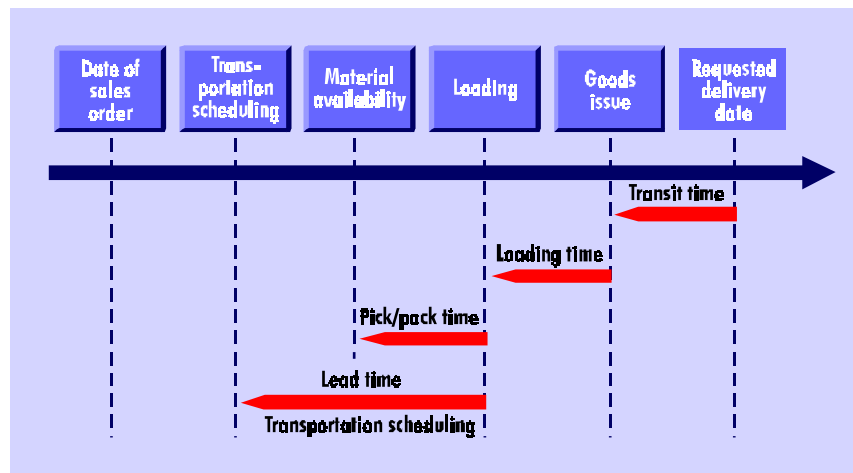


Fig. 5-10: Delivery Scheduling

Transportation Scheduling

Transportation scheduling takes into account the transit time and transportation lead time needed for a shipment, even in cases involving foreign carriers. R/3 SD can also take into account the work calendars of, for example, forwarding agents and other partners when determining transportation dates.

For both delivery and transportation scheduling, the system assigns transit time, loading time, picking/packing time, and transportation lead time. SD

bases delivery processing on several delivery deadline dates, including material availability date, transportation scheduling date, loading date, goods issue date, and delivery date.

Delivery scheduling and availability check are mutually dependent. The system uses the requested delivery date along with customer location information to determine when goods must be available. If goods are not available to satisfy the requested delivery date, SD uses forward scheduling to find the earliest date on which goods are available and calculates the actual date on which goods will be delivered to the customer.

Mutual Dependence

Because the sales, production and distribution situation in your organization changes continually, SD conducts an availability check at the time you enter a sales order to ensure that you can meet the needs of your customer. Availability is automatically rechecked during shipping processing.

Availability Checking

Availability check in SD determines whether products will be available to ensure delivery of goods on the customer's requested delivery date. This function also provides information on stock levels, identifies delivery bottlenecks, improves on-time business processing, transfers requirements to MRP, and improves customer service. There are two types of availability checks:

- ❑ Check on the basis of Available To Promise (ATP) quantities:
SD calculates availability from warehouse inventory and planned supply and demand.
- ❑ Check against planning:
SD calculates availability based solely on your planning projections rather than depending on order quantities.

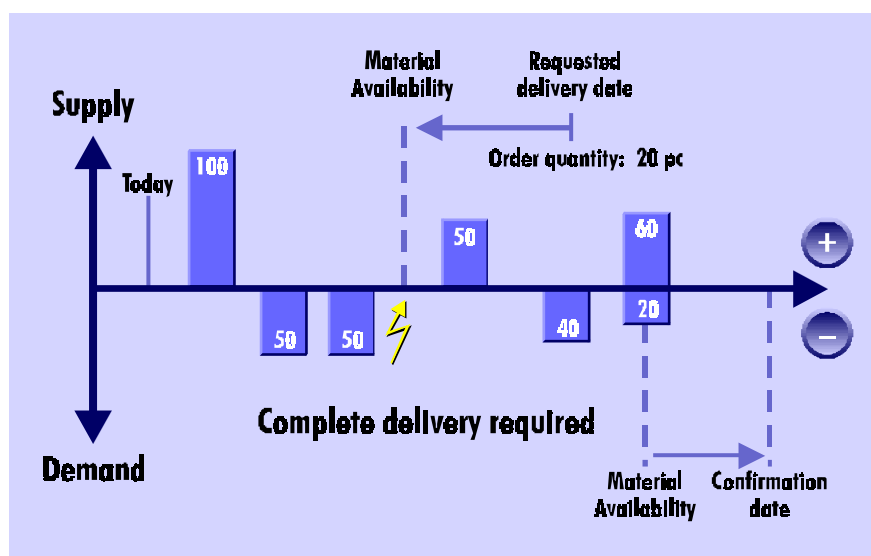


Fig. 5-11: Delivery Scheduling and Availability Check

In the figure above, a customer wants 20 pieces delivered by a requested delivery date. The system uses backward scheduling from the requested delivery date to determine an availability date that will meet that requested delivery date. In this case, however, insufficient stock is on hand on that availability date. The system then switches to forward scheduling from the material availability date to determine when the order can be delivered.

Availability Check Factors

SD's availability check is flexible, and can include a number of different factors. You can define which checking factors are used for each transaction. The factors include:

- | | |
|---|--|
| <input type="checkbox"/> safety stock | <input type="checkbox"/> inventory in quality inspection |
| <input type="checkbox"/> inventory in transit | <input type="checkbox"/> purchase orders |
| <input type="checkbox"/> planned orders | <input type="checkbox"/> purchase requisitions |
| <input type="checkbox"/> production orders | <input type="checkbox"/> reservations |
| <input type="checkbox"/> dependent requirements | <input type="checkbox"/> planned requirements |
| <input type="checkbox"/> sales requirements | <input type="checkbox"/> delivery requirements |

Replenishment Lead Time

Availability checking on the basis of ATP quantities can also take into account replenishment lead time, which is the time required to order or produce the requested product, using times you define in master data.

Availability in Other Plants

Availability checking also allows you to determine if some or all of the requested products are available in other plants.

Requirements Transfer

During requirements transfer, sales informs material requirements planning of the quantities of goods required to deliver orders received. You can use R/3 SD availability checking to do this. The integrated nature of R/3 means that the SD, MM and PP applications automatically exchange real-time requirements data. Requirements are recorded as individual or collective requirements. Materials management and production planning use requirements information from sales to determine whether production can begin immediately, or whether parts must be purchased first.

If the sales order has been blocked for delivery because the credit limit has been exceeded, the requirements transfer can also be blocked. The block is dependent on the business transaction type. Once the block is manually removed, requirements can be passed. If you later make changes, the system can automatically update requirements transfer.

Partial Deliveries

If delivery scheduling and the availability check determine that goods cannot be delivered by the requested date, the system reacts differently depending on your customer policy for accepting partial deliveries:

- ☐ The R/3 System determines the quantity, if any, that can be delivered on the customer's requested delivery date.

- ❑ The System determines the earliest date for a full delivery.
- ❑ The System determines what can be delivered on the customer's requested delivery date and any necessary partial deliveries until the full order quantity is reached.

Order items that cannot be confirmed for the customer's requested delivery date due to lack of availability can be updated using backorder processing. The system rechecks availability and displays the current situation. If all items now can be delivered, you can process the sales orders. You may also use the update function to manually reallocate products that are in short supply to your most urgent customer orders.

Updating Backorders

Pricing

Pricing in SD is a fine example of how well SAP's R/3 System meets global needs. This is one of the areas that has contributed to R/3 SD's "world class" reputation.

"World-Class" Functionality

SD carries out pricing automatically by determining and applying relevant predefined prices, surcharges and discounts for a product or group of products. You can change the data proposed by the system or add to it for a specific order.

Prices can come from a price list, from an agreement with a customer, or can be dependent upon the product or the product's cost. Surcharges, for example, can be customer-specific or can depend on the product group. Prices

Pricing Element Origins

generally apply to a specific period of time. For example, price lists change periodically; and discounts may apply only for the duration of a sales deal or a promotion.

Pricing Rules

Price agreements between business partners set pricing rules for a specific period of time. R/3 SD includes standard predefined pricing rules, but you can also build your own based on combinations of pricing rules. For example, pricing rules can include:

- ☐ product
- ☐ customer
- ☐ combination of customer and product
- ☐ combination of customer and product hierarchy
- ☐ combination of customer group and product
- ☐ combination of customer group and product hierarchy

Pricing Analysis

While processing an order, you can carry out a pricing analysis. This makes the automatic procedures of SD visible and helps avoid errors.

Pricing Procedure

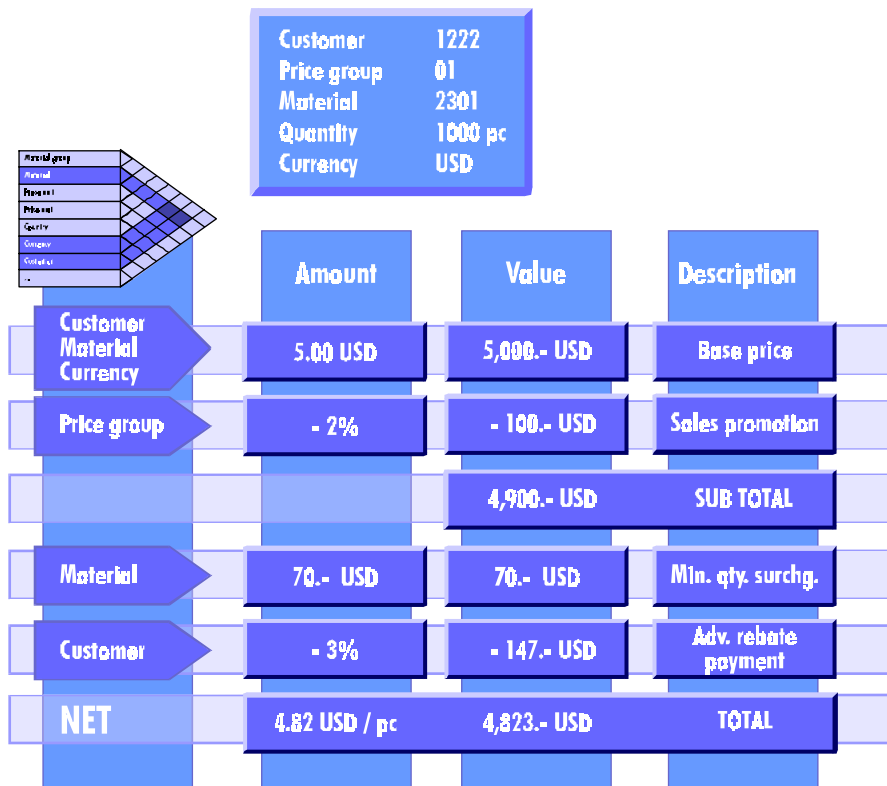
SD's pricing procedure defines which prices, surcharges and discounts apply to a transaction and how they will appear in the document. You personalize SD pricing to meet the needs of your organization. Your pricing procedure defines:

- ☐ which sub-totals appear
- ☐ to what extent pricing can be manually influenced
- ☐ how the system calculates percentage discounts and surcharges
- ☐ which requirements trigger a pricing procedure change

Pricing Example

When processing sales orders for foreign customers, a sales department may group customers by country or region. The department defines a pricing procedure for each customer grouping. Each procedure includes condition types for country-specific data such as taxes. In sales order processing, you specify pricing procedures for specific customers and sales document types. The system automatically determines which procedure to use and applies it to determine the overall value.

In a more complex example, the system determines that a product price is defined according to customer, product and currency. It then deducts a sales promotion amount from the product price to give a subtotal. The system also determines that a minimum quantity surcharge must be added and an advance rebate payment deducted from this subtotal. The resulting amount is the net price for the order item.



	Amount	Value	Description
Customer Material Currency	5.00 USD	5,000.- USD	Base price
Price group	- 2%	- 100.- USD	Sales promotion
		4,900.- USD	SUB TOTAL
Material	70.- USD	70.- USD	Min. qty. surchg.
Customer	- 3%	- 147.- USD	Adv. rebate payment
NET	4.82 USD / pc	4,823.- USD	TOTAL

Fig. 5-12: Example of Pricing

You display and, to some extent, can change all of the prices, surcharges, and discounts in the pricing screens of the sales order header and items.

SD has many ways to calculate discounts or surcharges, including:

- ☐ a percentage amount
- ☐ an absolute amount
- ☐ an amount per quantity, unit of measure, weight, unit volume or group of items
- ☐ a user-defined formula

Pricing flexibility in SD stays with you even after order entry. If you enter an order for a customer requesting shipment to their site, and the customer later calls, stating they will pick up the goods, this can be flagged when the delivery is confirmed. The system then automatically adjusts the final invoice price. You don't have to change the sales order.

**Customer Pickup
Allowance**

Group Pricing

If you want several products combined during pricing, you can create a pricing group. These group rules make it possible to create automated discounts based on quantity, for instance. When the total quantity of the

grouped products reaches a given point on a predefined scale, the system awards a discount.

Sales Taxes

SD includes provisions for country-specific sales taxes. This includes Value Added Tax (VAT) used in some European countries, as well as Canadian Provincial Sales Tax (PST) and Goods and Services Tax (GST). The system accommodates US state, county, city and jurisdiction taxes.

Automatic Tax Calculation

Automatic tax calculation in SD pulls tax data from customer and material master records. The system takes into account:

- ☐ whether the transaction is domestic or foreign
- ☐ tax classification of the customer's ship-to party (some organizations are tax-exempt)
- ☐ tax classification of the product (some are tax-free or taxed at a reduced rate)

Credit Management

R/3 SD makes use of integrated information from the R/3 Financial Accounting module to help you implement a credit management policy. The policy minimizes your credit risk while quickly resolving credit holds and expediting sales order processing. SD credit management helps you:

- ☐ specify your own automatic credit checks based on a variety of criteria
- ☐ specify at what points in the sales cycle SD makes these checks
- ☐ automatically alert order entry personnel when a sales order fails a credit check
- ☐ automatically alert credit management personnel through electronic mail about critical credit situations
- ☐ ensure quick response by your credit representatives

Types of Credit Checks

For different combinations of credit control area, risk category and document credit group, you can define credit checks including:

- | | |
|--|--|
| <input type="checkbox"/> static credit limit check | <input type="checkbox"/> overdue open items |
| <input type="checkbox"/> dynamic credit limit check | <input type="checkbox"/> oldest open item |
| <input type="checkbox"/> maximum document value | <input type="checkbox"/> date of next review |
| <input type="checkbox"/> changes made to critical fields | <input type="checkbox"/> user-defined checks |
| <input type="checkbox"/> maximum dunning levels allowed | |

You create credit-related master data for each customer in the credit control area. Your credit management staff in financial accounting specifies credit limits in the individual customer master records. You can specify multiple individual credit limits for a customer, and a maximum total limit for the customer.

Credit Master Data

You can specify automatic credit checks to be carried out at various times during the sales order cycle. During delivery processing, you can specify a credit check at delivery creation or goods issue. You can define risk categories and assign these to customers with specific credit limits.

Automated Credit Control

For each credit checking rule, you can define how the System responds. If it is a warning, for example, the System enters a credit status text in the document which describes the result of the credit check, and saves the document. Your credit rules can cause this credit status to trigger a block on further processing of the document, or block materials requirements.

Credit representatives can generate an overview list of credit holds in SD to ensure quick and effective processing.

Credit Hold Processing

Credit Management Reporting

R/3 SD includes a credit limit overview report which provides a comprehensive look at a customer's credit situation. You define which information you want using selection criteria on the report's initial screen:

- ☐ customer's total exposure balance
- ☐ customer balance of all special balances and pre-payments classified as relevant for the credit limit
- ☐ customer dunning data
- ☐ list of open items sorted according to days in arrears
- ☐ display of open items according to user-selectable variables
- ☐ display of customer texts

You can drill down from the credit overview to:

- ☐ display line items
- ☐ display documents
- ☐ analyze accounts
- ☐ review customer master record
- ☐ review payment history
- ☐ display or change credit management master data

- ❑ view or modify customer texts

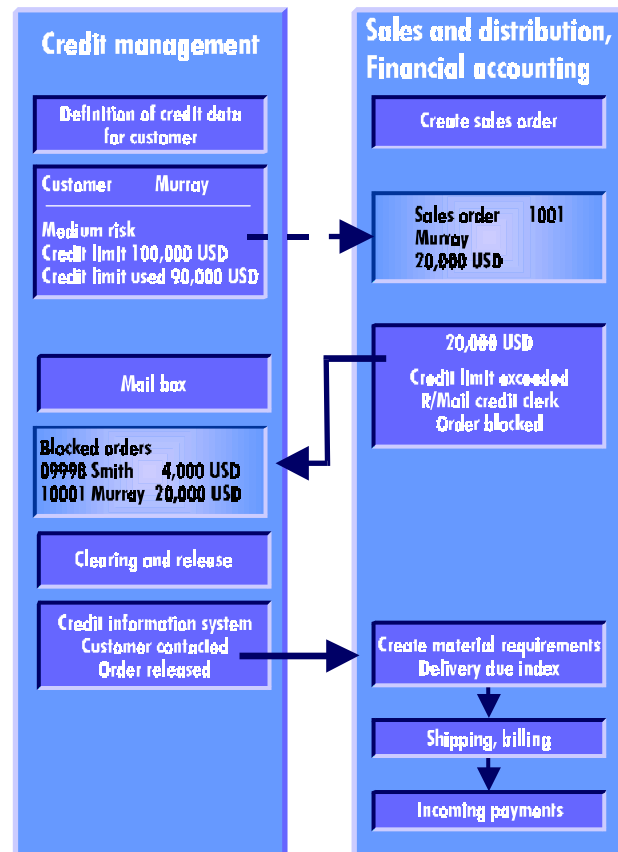


Fig. 5-13: Credit Management at Work

A credit management system makes particularly good sense in these situations:

- ❑ You want to take the financial pulse of customers to identify warning signs of a change in credit risk.
- ❑ You require a credit management system that you can adapt to your needs.
- ❑ You deal with financially volatile business sectors or countries.