# Sales Order Processing

**Outstanding Features**

❑ Transaction types and functions specific to your organization and processes save time and effort and create a smooth, efficient workflow.
❑ Linked transactions automatically share data both within sales and distribution and with transactions in other modules to save you time and
ensure accuracy.
❑ Automatic data proposals from master records improve data consistency
and execution speed.
❑ Current transaction status is available immediately, whenever you need it, for quick answers to your questions.
❑ Strong export processing expands your sales potential worldwide.
❑ Multi-language documents at the touch of your finger ease communications.

## Supply Chain Management

Effective sales order processing ties all actions to customer demand in a series of tightly integrated processes. This allows customer orders to pull products through the supply chain, providing a maximum of customer satisfaction with a minimum of inventory.

R/3 SD initiates precisely this kind of sales order processing using a series of linked documents to generate a process workflow for sales and distribution. SD begins with pre-sales inquiry processing and ends with billing of shipped products and data relay to the accounting department. SD represents each of the many stages and options in between with sales and distribution electronic documents, each linked both to preceding and subsequent electronic documents.

### SD Sales and Distribution Documents

The "documents" defined in SD enable you to process all the typical sales and distribution functions. "Documents" in R/3 are recorded transactions which represent business events. They are not necessarily printed documents. Each document contains all the information relevant for a particular

transaction. These documents include sales activities, inquiries, quotations, contracts, orders, deliveries and billing documents.

**Integrated Document Flow**

Just as in the rest of the R/3 System, sales documents relay information from one to the next to form an integrated flow of sales information. Sales document data moves automatically into shipping documents. Sales and shipping data moves automatically to billing documents. This document flow moves information while minimizing the amount of labor you add to the process at any step. It also minimizes the possibility of adding errors to the process. Once you enter and verify data, it moves through the system electronically.
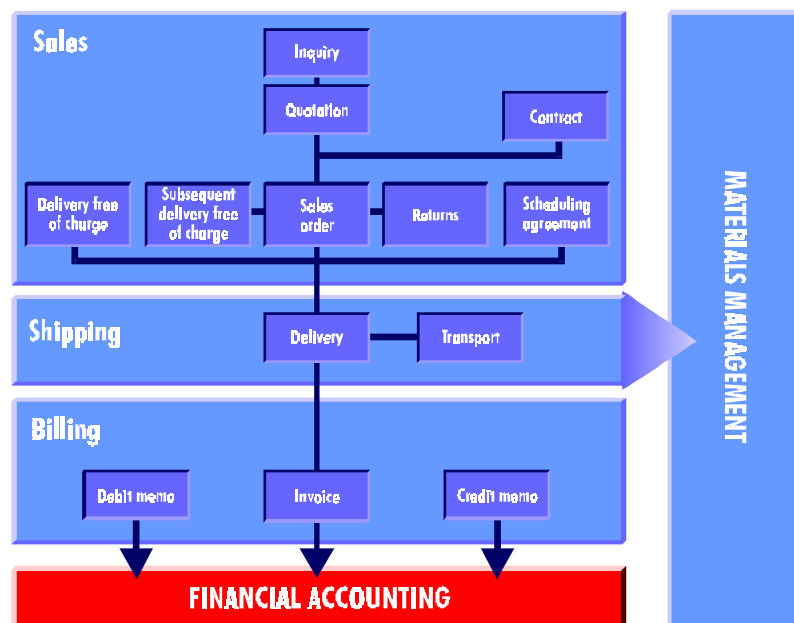


**Fig. 3-1: Integrated Document Flow**

**Processing Sales and Distribution Documents**

The system contains a variety of functions for processing sales and distribution documents, including creating, changing and displaying them. When you make changes to a document, such as altered prices or quantities, SD stores them in the history of the document. This includes information on who made the changes, what changes were made with a before and after view and when they were made.

**Accessing Sales and Distribution Documents and Master Data**

In R/3 SD, you can use search strategies or matchcodes to locate a specific document. Standard search strategies include:

❑   sales activities by description

❑   sales documents by customer purchase order number or customer part number

❑   credit and debit memos requiring approval

❑   delivery from a particular shipping point by goods issue date

❑   customers by telephone number

❑   product by customer part number

## Document Flow

Individual sales documents form part of a chain of interrelated records. You enter a customer's telephone inquiry in the system as a sales activity record. When the customer requests a quotation, you initiate it by referring to the inquiry, copying much of the data to the new document. When the customer places an order based on the quotation, you initiate a sales order based on the quotation.

When you enter a sales order in SD, you can access relevant information from across the entire logistics chain. When creating a sales order, the system can automatically check whether the ordered article is available in inventory or if the parts necessary to assemble the item are available. Goods issue, shipping and billing documents are also based on preceding records.

At this stage, the system adjusts inventory levels in the materials management module, and adjusts values in the financial accounting module, also based on data in the chain of documents. If the customer claims credit for goods damaged during shipment, you initiate a free-of-charge delivery or credit memo based on the sales order. The entire chain of documents creates a document flow or history. The flow of data from one document to the next reduces manual labor and makes problem resolution easier. The body of related data creates a resource for planning and controlling sales and marketing activities.
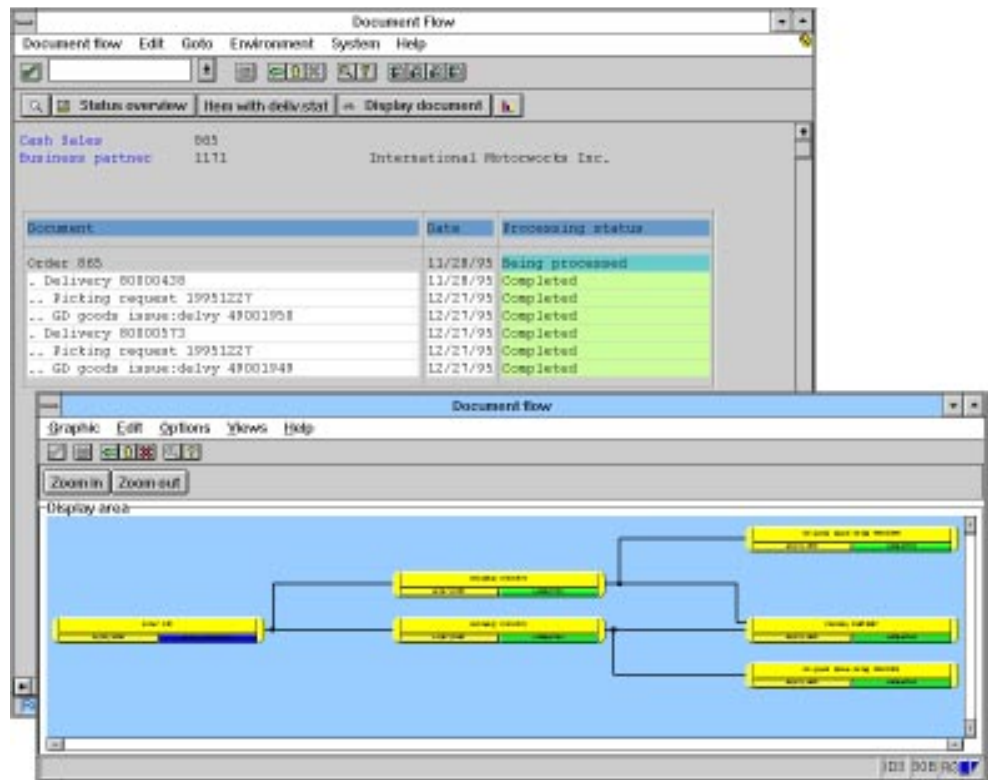
**Fig. 3-2: Document Flow Display**

The central document in sales is the sales order. You can base SD sales orders on preceding inquiries, quotations and contracts (blanket orders). During order entry, R/3 SD records information on the customer, and products or services ordered. Automatic functions such as delivery scheduling also support transportation planning for sales and distribution. R/3 SD transfers sales order information to subsequent documents which support delivery and invoicing.

In each sales document you can access information about existing documents elsewhere in the process chain. You can find the specific quotation on which a sales order is based. You can identify specific deliveries driven by a sales order. R/3 SD displays the document flow for a particular transaction for you, and you can branch or drill down to individual documents from this overview screen and examine them for further details.

You check the progress of a specific transaction using processing status. You use processing status to answer questions such as:

❑ Are all quotation items in the sales order?

❑ Is the sales order complete?

❑ Which items have been delivered?

❑   Has the transaction been fully invoiced?

## Document Structure

All sales and distribution documents have the same basic structure. This is the reason why quotations can be copied into sales orders, which can be transferred into deliveries and billing documents with ease.
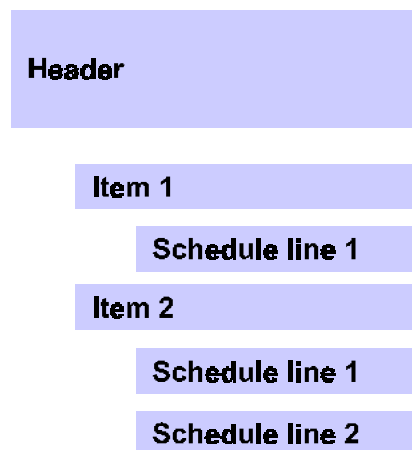


**Fig. 3-3:  Document Structure**

This structure reduces the time required for entering data during sales order processing. Sales and distribution document components include:

❑   Document header:
   This includes general data which applies to the entire document. Sold-to party, address, total net sales value and responsible sales organization might appear in the document header.

❑   Document line items:
   Document items contain information about goods and services ordered by the customer. Product number, order quantity, quantity to be delivered, alternative shipping addresses and individual item net value are examples of item data. Shipping point, terms of payment, prices, purchasing data and business partner information can also appear at the item level. Dependent items such as bill of materials (BOM) components or packaging materials appear as sub-item entries. Item level data may differ from header data when a customer receives special terms for an order item.

❑   Schedule lines:
   Each item in a sales document can have one or more schedule lines, which divide the item according to delivery date and quantity. If an item of 100 pieces must be delivered in four shipments due to a lack of

product availability, then four schedule lines display respective quantity and delivery date entries. R/3 SD stores shipping and procurement data at the schedule line level. When you process a delivery for a sales order item, the schedule lines in the sales order become items in the delivery.

## SD Document Functionality

You require different business processes depending on the type of transaction at hand. R/3 SD helps you tailor document functionality to meet the requirements of your organization using the R/3 System Implementation Guide.

**Central Control Over Document Processing**

Central control elements in SD let you determine how R/3 processes sales documents. You can also define new document functions to meet your needs. SD document control elements determine whether the system:

❑   uses customer-part number information records

❑   proposes delivery dates automatically

❑   checks credit limits

❑   schedules deliveries

❑   schedules transportation

❑   assigns document number ranges

**Item Independence**

In addition to document types, R/3 SD also includes item categories to represent a wide variety of item-level requirements. The system permits certain item categories for each type of sales document. For example, in third-party order processing, it is the item category that automatically triggers creation of a purchase requisition. Each line item in an order can in fact be treated like a separate order. Typical item categories include:

❑   assemble to order

❑   configure to order

❑   standard item

❑   free of charge item - no billing

❑   text item - no billing, delivery or inventory management

**Further Control Over Document Processing**

You can also specify control elements for item categories. Control elements for item categories define:

❑   pricing requirements          ❑   billing blocks

❑   delivery requirements        ❑   scheduling

❑   billing requirements

Each document carries a unique document number. You carry out number assignment in one of two ways:

❑   External number assignment verifies the number for each manually entered document from a number range specified for that document type and which has not been assigned before.

❑   Automatic internal number assignment assigns a sequential number in the range defined for the document type.

## SD Document Types

In any enterprise, sales transactions include some of the most varied information processing to be found. It is important that sales and distribution software solutions meet all requirements ranging from very simple to very complex transactions. R/3 SD allows you to initiate a wide array of document types, each of which includes its own set of functions to deal with a wide variety of requirements.

R/3 SD uses a variety of documents for sales processing. This includes documents specifically defined for fulfilling shipping and billing functions. You can define additional processing options as needed, or alter the existing documents defined in SD.
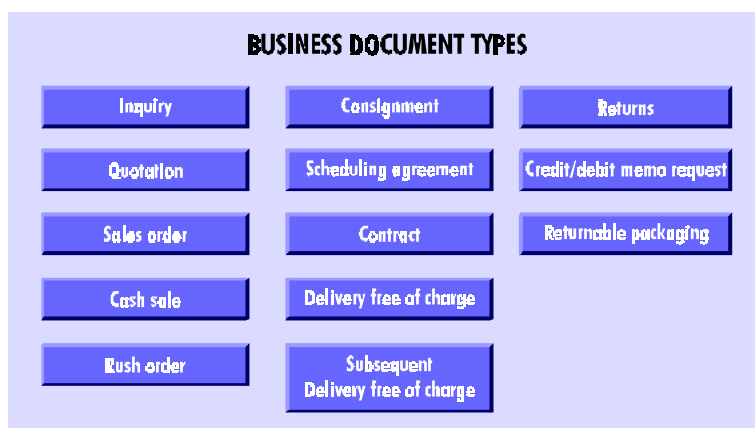


**BUSINESS DOCUMENT TYPES**

| Inquiry | Consignment | Returns |
| Quotation | Scheduling agreement | Credit/debit memo request |
| Sales order | Contract | Returnable packaging |
| Cash sale | Delivery free of charge | |
| Rush order | Subsequent Delivery free of charge | |

**Fig. 3-4:  R/3 Business Document Types**

Order cycles sometimes begin with the sales order itself, or with a sales query such as an inquiry or request for quotation. Sales queries help you enter and store important, sales-related information you will use later during order processing. Simple queries require only one entry screen.

For example, suppose a customer or prospect wants to know whether you stock a certain line of products, or if you have catalogs and brochures available. You enter the query from scratch or copy it from earlier documents. Use this pre-sales information to plan sales strategies or help build a long-term relationship with the customer. After recording the customer's inquiry, you might additionally:

❑   enter specific items in the inquiry

❑   enter descriptions of products for later research

❑   let the system determine the sales price automatically

❑   run an availability check

Using sales queries provides data that may have great value for you later, particularly when:

❑   tracking lost sales

❑   recording pre-sales data to help negotiate large contracts

❑   selling to large organizations and must document the entire process

❑   analyzing the pre-sales process to improve its effectiveness

**Sales Quotation**

When a customer wants a price for a certain quantity of a product, and when it will be available for shipment, you initiate a quotation. You initiate the quotation directly or refer to an inquiry. You may also:

❑   enter specific products

❑   enter product descriptions

❑   carry out automatic pricing

❑   check availability

❑   calculate order probability

❑   offer alternative items to fill the customer's request

The quotation helps you quickly respond to the customer in writing with a binding offer.

**Sales Orders**

R/3 SD adapts to your needs with different approaches to the sales order depending on the task at hand. If you wish, simply enter a sales order on a single screen, without reference to other documents. The system automatically proposes data from relevant master records:

❑   SD proposes sales, shipping, pricing and billing data from the customer master record of the sold-to party. SD also copies customer-specific master data about texts, partners and contact people.

❑ SD automatically proposes data from the relevant material master records for each product in the sales order. This includes data for pricing, delivery scheduling, availability checking, tax determination, as well as weight and volume determination.

If necessary, you can modify data manually or add new data. For example, your pricing policy may allow you to manually change the value of certain discounts within a permitted range. In addition, you can branch to a number of different screens to modify data such as terms of payment and delivery data. All relevant data, such as a delivery date requested by the customer, becomes part of the sales order.

Existing pre-sales documents serve as references for sales orders. If a customer accepts a quotation, SD will copy relevant master data from the quotation when you initiate the sales order.

SD automatically carries out several standard functions when you process a sales order. These include:

❑ pricing

❑ availability checking

❑ update material requirements planning (MRP)

❑ delivery scheduling

❑ shipping point and route determination

❑ credit check

❑ export license check

**Scheduling Agreements and Contracts**

Scheduling agreements and contracts are blanket documents specifying goods or services to be delivered to the customer over a specified period of time. Agreements and contracts make it easier to fulfill customer orders by providing more time for planning. They also give your customer the best possible price. You specify the quantity of goods and the delivery date in a scheduling agreement. Each delivery in the schedule is a separate schedule line. You can initiate schedule lines at the same time as the scheduling agreement, or you can add them later.

You fulfill a scheduling agreement by creating the deliveries in the schedule as they become due. You process each delivery exactly as you would a normal delivery. SD then updates the delivered quantity field in the agreement.

Contracts specify only an overall quantity or value sold. A release order specifies delivery data for a contract.

**Cash Sales**

In a cash sales transaction, the customer picks up and pays for goods when the sales order is placed. When you initiate a cash sale, the SD system auto-

matically proposes the current date as the delivery and billing date. When you post the cash sale, SD automatically:

❑    initiates a delivery in background

❑    prints out a cash sale invoice

SD later processes the cash sale as an order-related billing transaction, but prints no invoice. The system uses the sales order number as the reference for the financial accounting document.

## Rush Orders

In a rush order transaction, the customer picks up the goods or you deliver them at the same time that you initiate the order. However, you process the invoice later. The system also carries out sales and shipping functions, such as availability checking and scheduling, at that time.

## Make-to-Order Production

Make-to-order processing results in production of a specified quantity of product for a particular customer. The production process order is then pegged back to the sales order. Depending on how you track the costs, there are two categories of make-to-order production:

❑    Make-to-order production with cost management using the sales order assigns all costs and revenues for an order item back to that item.

❑    Make-to-order production with cost management using a project assigns all costs and revenues for an order item to a project in the R/3 Project System.

## Customer Projects

A customer project is typically a large, one-of-a-kind project that employs a design team, as well as R/3 Project System planning and cost management. An example of this would be a plant engineering or construction project. Large projects typically include a series of milestones marking the completion of stages in the project. Milestones in the R/3 System are defined using planned and actual dates for completion of the work for each milestone. Completion of each milestone determines the billing date.

## Consignment

Consignment goods are those stored at a customer site but which your company owns. The customer does not pay for these goods until they use the goods. Customers notify you of stock removed from consignment for use. You manage these stocks separately for each customer. SD manages consignment stock using:

❑    consignment replenishment orders for the customer site

❑    consignment issues when inventory is removed by the customer for use

❑    consignment pickup when customers return unused consignment goods

## Returnable Packaging

Returnable packaging includes packaging materials stored at the customer location but which remain the property of your company. These may be

pallets, drums, bottles or anything else of value which is considered an asset and might be charged to the customer if not returned. You only bill a customer for these materials if they are not returned to you by a specified time. Use this capability to process Euro-pallets, or to handle leased pallets.

Because packaging materials form part of your valuated inventory, you manage them in your system even when they sit at a customer site. SD makes it easy for you to manage returnable packaging separately from the rest of your inventory, and separately from other customers, so that you know exactly what inventory is stored at a particular customer location.
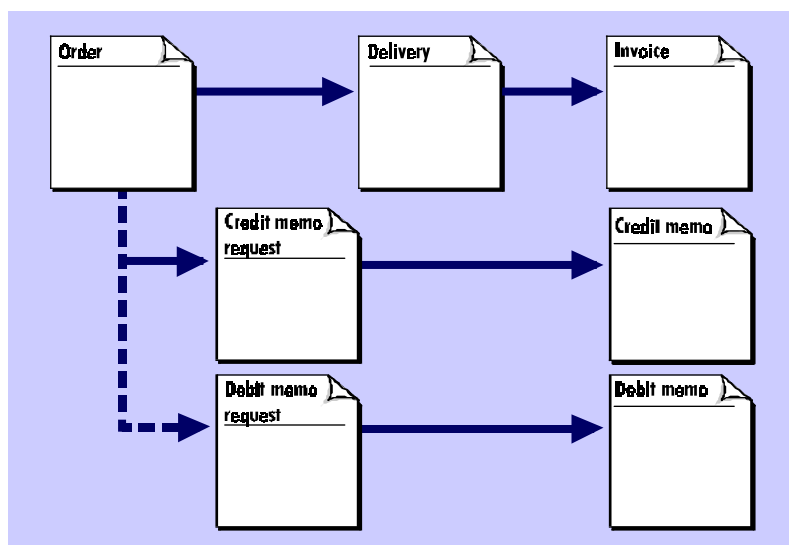


**Fig. 3-5: Credit and Debit Memo Processing**

Return, credit and debit processing includes transactions to pick up goods found unsuitable by a customer, or goods damaged during delivery. You arrange free of charge deliveries to replace problem goods, or you issue a credit memo request. There are five of these transactions:

❑   A free-of-charge delivery sends a free-delivery sample of your product (not based on preceding sales order) to the customer.

❑   A subsequent free-of-charge delivery replaces missing or damaged purchased goods.

❑   A return processes damaged goods delivered to the customer or goods delivered on approval.

❑   A credit memo request credits the customer for overcharges or for goods returned.

❑   A debit memo request debits the customer for undercharges.

## Drop Shipments

Your company may not deliver ordered items to a customer from inventory. Instead, you pass the ordered items to a third-party vendor who then ships the goods directly to the customer and bills you for the drop shipment. A sales order may include some or all third-party items. When a customer orders a third-party item, SD automatically initiates a purchase requisition for that item. The purchase requisition contains quantities and delivery dates. R/3 SD uses the materials management system to initiate purchase orders from the requisitions.

When the delivery is complete and the third-party invoice arrives, you complete billing to the customer by copying the quantity from the third-party invoice onto the billing document for the customer.
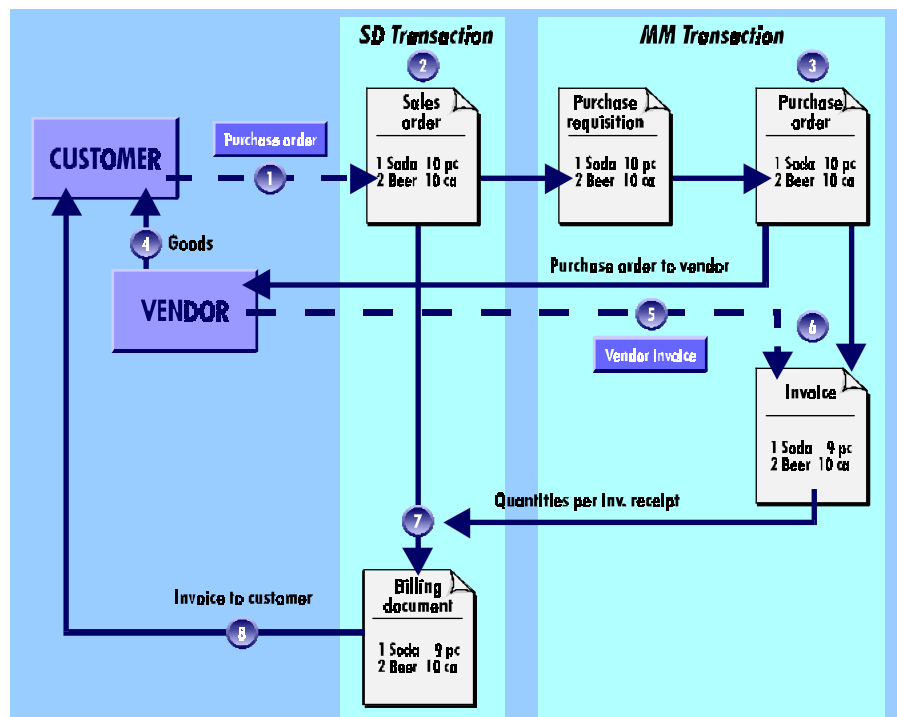


**Fig. 3-6:  Drop Shipments**

## Intercompany Business

Because your organizational or corporate structure may not fit every business scenario (or every customer requirement), the R/3 System provides some added flexibility. You can sell products from one sales organization with a specific company code, and then ship the products from a plant belonging to a different company code. This process, called intercompany sales processing, allows you to invoice the end customer and send an intercompany invoice at, for example, cost, cost plus, or list cost less discount, between the shipping company and the sales organization.

# Where Sales Data Originates

R/3 SD makes extensive use of automated copying functions that transfer data from one sales document to another as you initiate new documents in the course of business. Note that in the diagram below and in the R\3 System, the word "material" can refer to either raw materials or products.

**Customer master**

- Business partners
- Pricing
- Tax determination
- Delivery scheduling
- Payment
- Printing

**Material master**

- Pricing
- Tax determination
- Determining weight/volume
- Availability check
- Delivery scheduling
- Shipping control data

**Customer-material information record**

- Customer-material (product) number
- Customer-material (product) description
- Delivery Priority
- Minimum Delivery quantity
- Batch split allowed
- Partial delivery allowed

Sold-to-party : 24        Smith, Inc.

Sales order   : 167

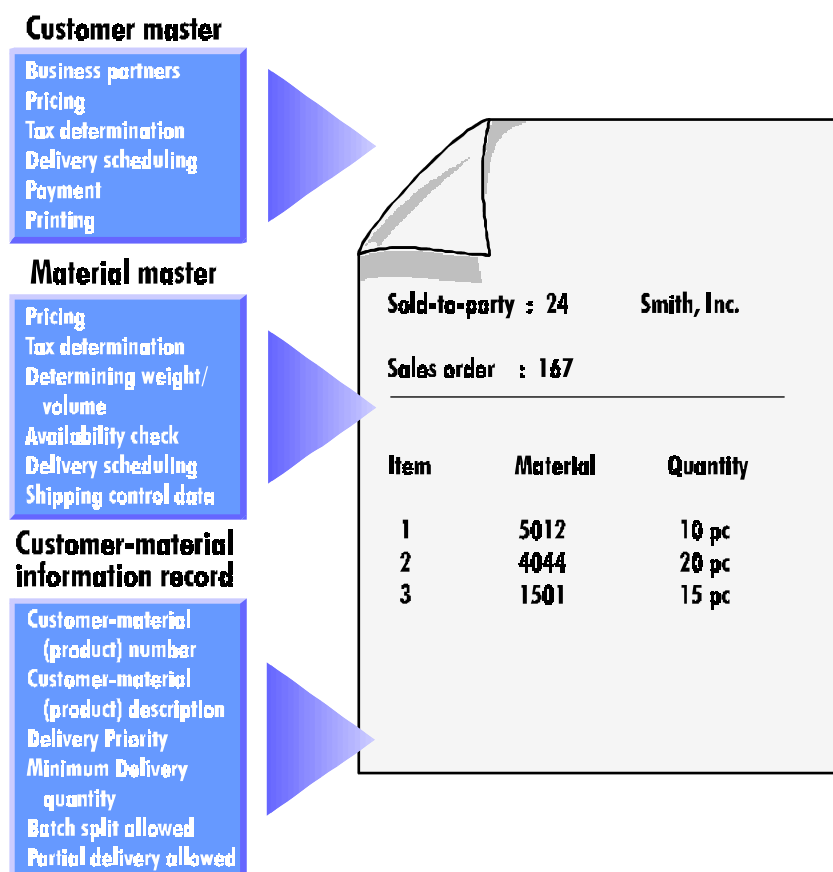| Item | Material | Quantity |
|------|----------|----------|
| 1 | 5012 | 10 pc |
| 2 | 4044 | 20 pc |
| 3 | 1501 | 15 pc |

**Fig. 3-7: Data Sources for Automatic Copying into New Documents**

There are two ways to initiate new sales documents:

❑    New document without reference to an existing document: In this case, R/3 SD searches for master data records on the customer, any business partners, the product, pricing master files, customer/material information records and any relevant product proposal. The system transfers this information to the new document automatically. You add or change data manually if you make special arrangements for a particular transaction, such as special one-time payment terms or special delivery arrangements.

❑    New document with reference to existing document: In this case, you reference a quotation to initiate a sales order. R/3 SD automatically transfers data from the referenced document. Again, you add or change data manually, such as adding unique customer-specific information.

## Texts in SD Documents

R/3 SD accepts information in text form at header and item level in sales and distribution documents. You can copy these texts automatically from master records, reference documents, or upload a text into R/3 from your desktop system. You can also enter texts manually at any point during processing. The system adapts these texts to the language of the customer.
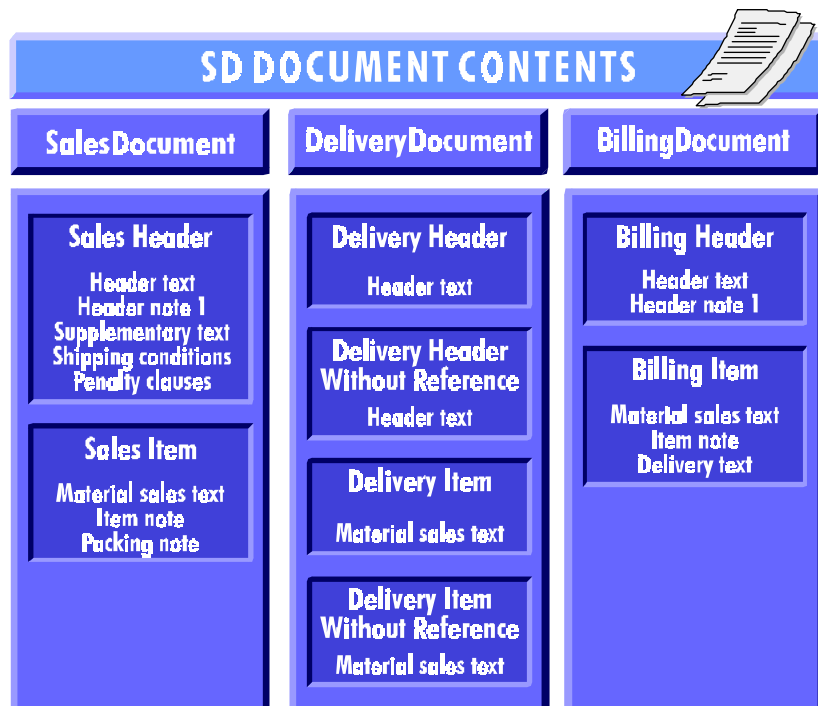


**Fig. 3-8:  Texts in SD Documents**

Header texts can include text automatically copied from reference documents, header notes such as terms of payment, contract agreements, liability exclusion clauses, shipping regulations, or penalty clauses.

Item texts can include product description, item notes, and packing notes.

Billing documents include texts such as product sales text, item notes, and delivery text.