# Communications

**Outstanding Features:**

❑ Automatic output proposal saves you time and effort.
❑ Flexible EDI capability provides a powerful communications advantage.
❑ A broad variety of communication media ensures your information reaches all the right places quickly and reliably.
❑ Predefined output categories for common requirements ensures your solutions are up and running quickly.

Comprehensive communications with all internal and external partners is crucial for effective sales and distribution activities. You constantly send electronic documents to customers, organizations within your own company, as well as external organizations. Partnerships with vendors now frequently make use of tight communications integration that used to be found only within an organization.

You control the exchange of information through R/3 SD in a variety of ways. Control functions refer to the output medium and communication timing, as well as the choice of recipient. You can change all three of these variables to suit your needs, including whether you use electronic data interchange (EDI) communication.

**Output**

Output in SD refers to any of the printed or electronically transmitted documents you create while processing orders, deliveries or invoices. These "output documents" can be sent to customers, vendors and others, or may be used for internal purposes (picking lists, for example). Output includes functions such as:

❑ output proposals when you process sales and distribution documents

❑ changes or extensions of output proposals

❑ automatic output or output requiring initiation by the user

❑ repetition of output

❑ changed output

❑ output status information

❑ adaptations of output proposed by the system

The SD system requires output at several stages of document processing, including sales, picking, delivery, and billing.
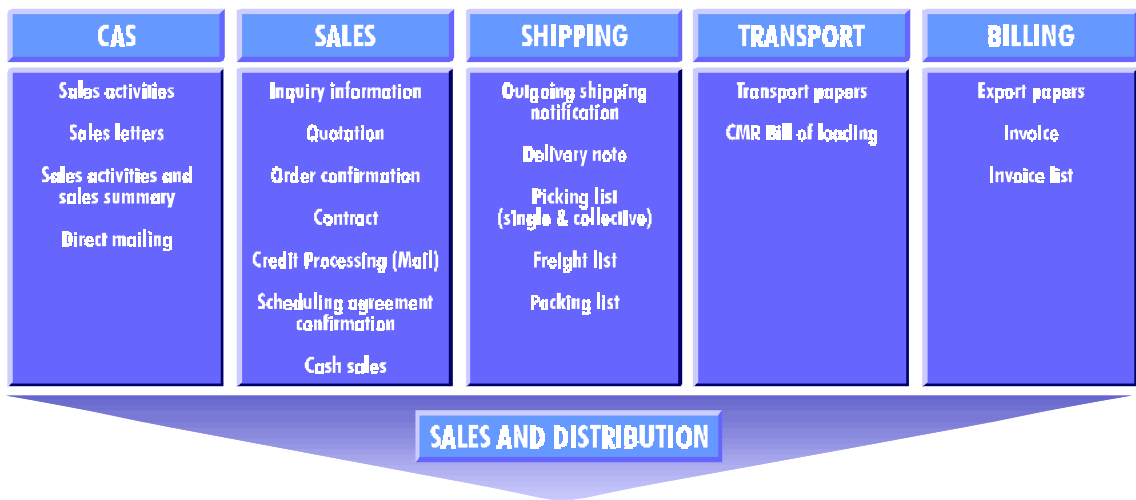
| CAS | SALES | SHIPPING | TRANSPORT | BILLING |
|---|---|---|---|---|
| Sales activities | Inquiry information | Outgoing shipping notification | Transport papers | Export papers |
| Sales letters | Quotation | Delivery note | CMR Bill of loading | Invoice |
| Sales activities and sales summary | Order confirmation | Picking list (single & collective) | | Invoice list |
| Direct mailing | Contract | Freight list | | |
| | Credit Processing (Mail) | Packing list | | |
| | Scheduling agreement confirmation | | | |
| | Cash sales | | | |

**SALES AND DISTRIBUTION**

**Fig. 12-1:  Output and Output Types**

**Output Media**

Output media in SD can be varied broadly to suit your needs. They include:

❑    local and network printing

❑    FAX, Telex, and Teletex

❑    paper mail, internal and external e-mail

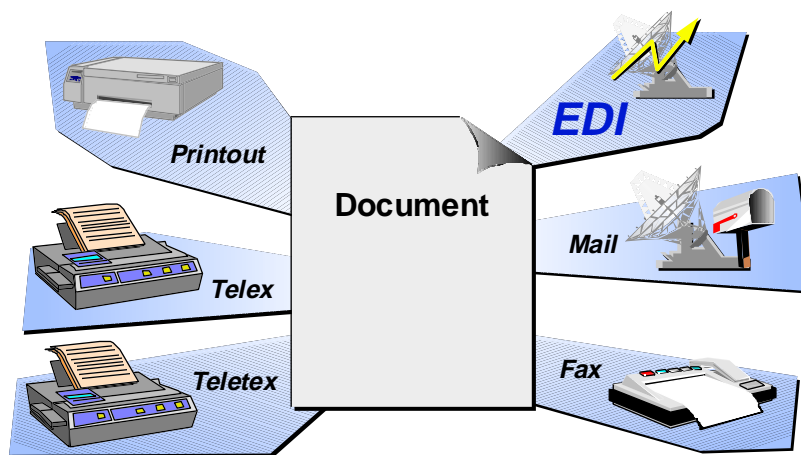❑    Electronic Data Interchange (EDI)



**Fig. 12-2:  Output and Printing**

**Electronic Data Interchange (EDI)**

Electronic Data Interchange (EDI) allows you to exchange structured electronic data with customers and business partners who also use EDI. More and more companies are making extensive use of EDI to speed communication and information processing. There are now firms that will not accept vendors who do not use EDI.

Within sales order processing, you can send and receive information through R/3's EDI interface. You can create sales documents with information received through EDI. You can also generate EDI messages from R/3 transactions.

Inbound EDI messages are converted by an external translator into SAP format. The messages are then stored as intermediate documents (IDocs). IDocs can then be transferred into R/3 applications. Outbound EDI messaging goes through the same process in reverse order. Communication between translators uses Remote Function Call (RFC) and Network File Transfer (NFS) formats.

When an EDI partner receives an EDI message, the system immediately creates the appropriate SD transaction. For example, the system creates a sales order and sends a message with the current status of the IDoc. If an EDI error occurs, the person responsible is notified via email. You can branch from this email directly to the transaction in question.

Inbound EDI communication to SD includes:

❑ request for quote                    ❑ purchase order

❑ forecast delivery schedule          ❑ purchase order change
   request

❑ JIT delivery schedule               ❑ credit memo

❑ delivery note for external service agent

Outbound EDI communication from SD includes:

❑ quotation                           ❑ order confirmation

❑ dispatch advice                     ❑ purchase order change
   acknowledge

❑ delivery note/transport             ❑ invoice

❑ export documents                    ❑ invoice list

**Output Assignment**

Before you can execute output, the system requires specific information. You store the different output types in the customer master records. You link each output type to the corresponding document (order confirmation output for the sales order document, invoice output for the invoice document, etc.). Partner functions can become involved, for instance, when you direct delivery output to the ship-to party rather than the sold-to party. If the output you desire does not already exist, you must first either create or modify existing forms, and then assign them to the task.

**Initiate Output**

You initiate output by either creating a new document or by modifying an existing one. R/3 SD provides standard layouts that you can use as templates. Typically, you adapt these to the requirements of your organization.

Once you initiate the output in the form you desire, you select an output type, such as order confirmation, delivery note, loading list, freight list or quotation confirmation.

Output Queue      Data on output resides in the SD queue until either you manually request output, or until the system automatically generates the output based on the queue control parameters. The control parameters include:

❑   output medium          ❑   output language

❑   output time            ❑   output quantity

SD can store these parameters as part of each document in the customer master record or in specific communication rules.

Output Specifications      You define other specifics about output to meet your needs. These might include:

❑   specifying an exact time for output, such as a 4 p.m. EDI relay to a vendor

❑   specifying that output for a particular document is only sent on request

❑   specifying that output for a document is sent periodically, such as daily or hourly

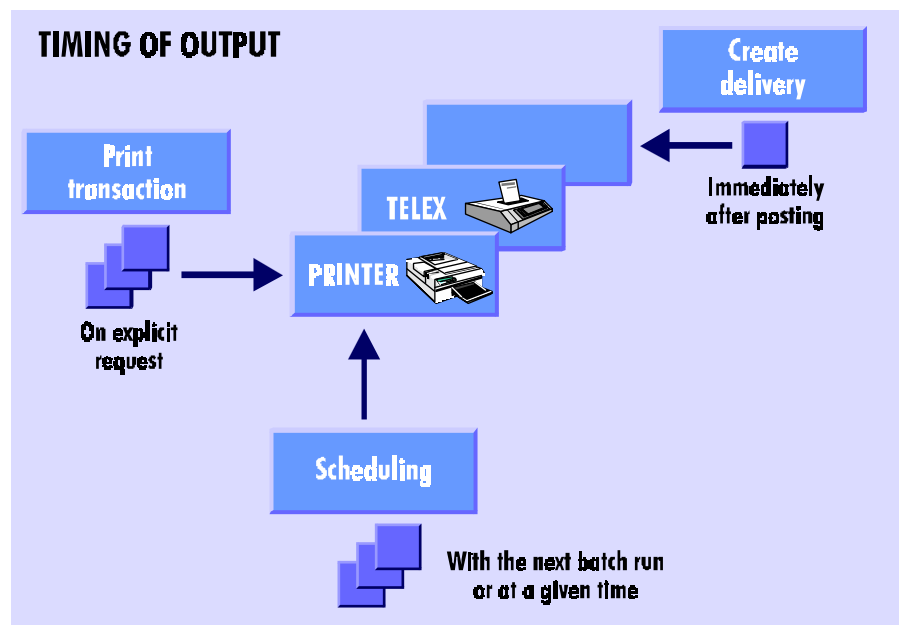❑   specifying that output is sent immediately after the document is saved



**Fig. 12-3:  Output Timing**

SD uses the Sales and Distribution document type and specifications in the customer master record or in output specifications to determine appropriate output for a particular business transaction. SD proposes output medium, partner language and output quantity from the customer master record for the document. You can change these proposals to suit your requirements.

**Output Proposal in SD Documents**

Printing through the system, like other aspects of SD, is adaptable to your needs. You can print to a central printer or any printer in your company, whether local or remote. You can also specify particular printers for specific types of output. For example, you can specify that all picking lists are printed in the warehouse where picking takes place.

**Printing**

Foreign trade communications output from R/3 SD includes the following options:

**Communications for Foreign Trade**

❑ Create the most important documents for foreign trade, such as T1, T2, UZ and EUR1/EUR2 documents in R/3 SD using the SAP-ABAP/4 Development Workbench.

❑ Connect partner systems to your R/3 SD system.

❑ Send an EDI message to an EDI subsystem using a standard EDI tool.

Optical archiving enables you to maintain and quickly access facsimiles of original documents, an important resource for determining the content of source documents in your business processing. R/3 links to the optical archive using ArchiveLink. Written inquiries sent by the customer, responses to your questionnaires, output you send to the customer, and sales and marketing materials relevant to the transaction can all be stored in the optical archive.

**Optical Archiving**

For example, you might scan incoming documents and archive them before a sales activity is created. A mail message goes to the person responsible for the transaction. The responsible sales person can branch directly from the mail message to the appropriate business transaction, and the document is automatically assigned to that transaction. Flexibility in R/3's optical archiving capabilities allows you to easily adapt it to a number of different business scenarios.

The development of the Internet, including the World-Wide Web, promises to make dramatic changes in communications between businesses and with customers. SAP is working with several partners to develop enhanced Internet extensions for the R/3 System, for release during 1996. For further information, see SAP's Web pages at http://www.sap-ag.de.

**R/3 Internet Extensions**