SD – Sales and Distribution

Release 4.6C

SAP™

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Icons

Icon	Meaning
⚠	Caution
💬	Example
➡	Note
🧭	Recommendation
Syn	Syntax
💡	Tip

Contents

SD – Sales and Distribution

In the Sales and Distribution area, you will receive information on the transfer of the following objects:

- Sales documents

- Conditions

Sales documents

The documentation for transferring sales documents from a legacy system is structured as follows:

- The **information sheet** contains a table of the most important technical information that you require to transfer data.

- The **process flow** describes the data transfer process in individual steps.

- The **structuring rules** contain all the information required for creating a data transfer file.

- The section on direct input provides a step-by-step description on how to carry out the data transfer program.

Sales Document Data Transfer Information Sheet

A. Object Profile

Object Name and Identification

Name of application object	Sales documents
Description of business objects (BOR objects)	- BUS2030 (Customer inquiry) - BUS2031 (Customer quotation) - BUS2032 (Sales order) - BUS2034 (Customer contract) - BUS2035 (Customer scheduling agreement) - BUS2094 (Credit memo request) - BUS2096 (Debit memo request) - BUS2102 (Returns) - BUS2103 (Free of charge subsequent delivery)
DX Workbench object and, if required, subobject number(s) (DX Workbench <= 4.5)	90
Change document object supported?	no
Long text object	yes
Data category	Transaction data
Number assignment	Internal and external (depends on setting in Customizing)
SAP field available for number in legacy system?	BVBAK; KDM_OLDNR (can be entered and written in a field in the sales document)

Transactions

Create	VA01 (create sales order), VA11 (create inquiry), VA21 (create quotation), VA41 (create contract)
Change	VA02 (change sales order), VA12 (change inquiry), VA22 (change quotation), VA42 (change contract)
Display	VA03 (display sales order), VA13 (display inquiry), VA23 (display quotation)

Further Programs

Reports to analyze and display transferred data	none

B. DI Information

Deletion program available for mass data or cancellation function?	no
Change program for mass data available? Can the mass tool be used?	no
Function modules	SD_SALES_HEADER_MAINTAIN
	SD_SALES_ITEM_MAINTAIN

Tables/Databases

Relevant tables	VBAK, VBAP,VBEP,VBKD, …
Logical databases	none

Customizing

Customizing activities influencing the data transfer.	General Customizing for master data and materials

Time and Sequence

Time of transfer	Quotations and contracts have a specific validity period. If this validity period has already expired, you should consider whether data transfer is necessary.
Interdependencies with other data	Customizing for customers and materials must be maintained

B. DI Information

DI transfer program	RVINVB10 (new); RVINVB00 (old)
Restrictions and specific notes	All fields are copied from the transfer file
	The program RVINVB00 is available until Release 3.1. You can find further information on this in the implementation guide for Sales and Distribution under *Data Transfer → Data Transfer (Up To 3.1x)*
User exits or business add-ins available?	yes
Program for test data generation	RVINVBT0
Append structures	VBAKKOZ;VBAPKOZ as Include structures
NODATA characters	!
RESET characters	blank

C. BAPI Information

Business Object Methods	SalesOrder.CreateFromDat2
Output category	SALESORDER_CREATEFROMDAT2
IDoc type	P
Are all necessary parameters included?	yes
Test run indicator (details*)	yes
Mass update possible? Is the buffer concept realized?	no
Extensibility of BAPI: - Parameter extensionIn/extensionOut?	extensionIn
User-Exits or Add-Ins available?	no
Program for test data generation?	SD_CREATE_TEST_DATA

* See 'BAPI development guide for mass data transfer'

D. EDI Information
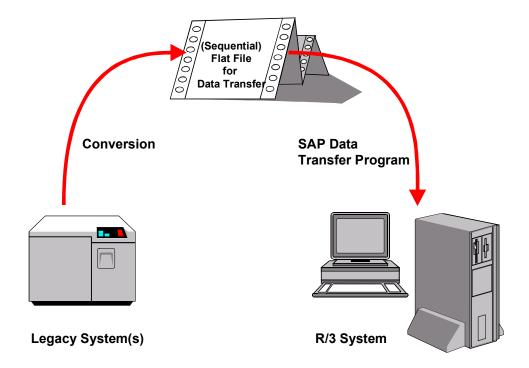
Output category	IDoc type	Workflow	Issue type
ORDERS (arrival)	ORDERS01 - ORDERS04	TS00008046	
ORDCHG (arrival)	ORDERS01 - ORDERS04	TS00008115	
REQOTE (arrival)	ORDERS01 - ORDERS04	TS00408087	
DELORD (arrival)	ORDERS03 - ORDERS04	TS20000117	
ORDRSP (export)	ORDERS01 - ORDERS04		BA00
QUOTES (export)	ORDERS01 - ORDERS04		AN00
INVOIC (export)	INVOIC01 - INVOIC02		RD00

Process Flow for Data Transfer of Sales Documents

Process Flow

During the transfer of sales documents, data from the legacy system is converted into a sequential data transfer file and then transferred to the R/3 System with the SAP transfer program - RVINVB10. The data transfer file contains data in a format that is both suitable for SAP and necessary for transferring data successfully.

(Sequential) Flat File for Data Transfer

Conversion   **SAP Data Transfer Program**

Legacy System(s)   **R/3 System**

Open sales documents are transferred in the following sequence:

1. Identify the Relevant Fields [Ext.]

   We recommend that you create a sales order in the R/3 System to check the fields. (Create sales order [Ext.]) and analyze the fields using F1 help.

2. Analyzing the Transfer Structure [Ext.]

   There are certain structuring rules [Ext.], which you need to follow for transferring the structure of sales documents.

3. Create a Sample Data Transfer File [Ext.].

   Alternately, you can create test data [Ext.] for the sales documents and create an example data transfer file from orders that already exist in the system.

   By choosing *Test data,* you start program RVINVBT0 to generate an example transfer file with input data for program RVINVB10. To start the program, sales orders must already exist in the system. The program reads the sales orders and writes them to the

transfer file as test data. In this way, the system transfers data for header, partners, items and schedule lines from the existing sales orders. The system generates test records for conditions. New sales orders can be created from the generated file with program RVINVB10 or RVINVB00 (data transfer up to 3.1x).

4. Test the Data Transfer Program [Ext.]

   You can do this in the sales documents by choosing the *Test data* function.

5. Analyze the Legacy Data [Ext.]

6. Assign Fields [Ext.]

7. Write a Conversion Program [Ext.]

   Note the structuring rules [Ext.] which are valid for the transfer file for sales documents.

8. Prepare the Legacy System [Ext.]

9. Test the Data Transfer [Ext.]

   See the documentation for objects in Direct Input and Error Handling [Ext.].

10. Execute the Data Transfer [Ext.]

Result

The open sales documents are transferred to the R/3 System.

Structuring Rules for the Sales Document Transfer File

There are certain structuring rules for the transfer file of sales documents that need to be taken into account, for example, when using the conversion routines.

General Structuring Rules

The data consists of a sequence of records. The records have different structures according to the contents of the data and each structure has a name which defines it in the Data Dictionary. You must transfer this name in the first field of the structure. You can see the name of a structure when you display the initial transfer file in the data transfer workbench.

Field Formats and Contents

- Each data record must have the table name at the beginning so that it can be identified (for example, BVBAPKOM for item data). Note that, in contrast to entering information manually, fields sometimes have to be transferred in their internal format: Date fields in the format of YYYYMMDD, for example, 19971231.

- Refer to the data element documentation for the quantity and value fields. Partner functions should be entered in internal format, which means that the abbreviations are not language-dependent: AG = sold-to party, WE = ship-to party, RE = bill-to party, RG = payer.

- Sales order types should also be in internal format, which means that the abbreviations are not language-dependent. For example, TA is used for standard order instead of the English translation OR.

- Enter the period indicator in internal format for the requested delivery date: 1 = day, 2 = week, 3 = month.

- Any numerical fields including date fields, that are not being used, must begin with zeros.

Detailed Information for Each Communication Structure

- **BVBAKKOM** communication structure:

  The BVBAKKOM communication structure is used for header and if necessary, contract header data.

- **BVBPAKOM** communication structure:

  The BVBPAKOM communication structure is used to transfer data for the document partners. You must enter item number '000000' for the header partner. You can also enter partners at item level by specifying them after the relevant item with the item number.

- **BVBAPKOM** communication structure:

  The communication structure for table BVBAPKOM is used to transmit item data and conditions. You can also enter an order quantity and a requested delivery date in this communication structure and these are copied as the first schedule line. In credit and debit memo requests as well as contracts, enter the target quantity.

- **BVBEPKOM** communication structure:

  In the BVBEPKOM communication structure, you can enter the data for additional order quantities and deadlines as schedule lines.

- **BTEXHKOM** communication structure:

  This communication structure is used to transfer the text header data.

- **BTEXLKOM** communication structure:

  This communication structure is used to transfer the text lines data.

  When you create communication structures for transferring texts (BTEXLKOM and BTEXHKOM), you must always specify a text header before a text line record. (See also "Sample sequence".)

Special Features for Scheduling Agreements

There are two fields in the VBAPKOM and BVBAPKOM communication structures for transferring data from scheduling agreements that enable you to transfer the external cumulative quantities and their deadlines. The system uses this data to create a correction delivery and enter a beginning cumulative quantity in the new scheduling agreements.

  Schedule lines cannot be copied to delivery schedules.

Sample Sequence

BVBAKKOM	Header data in first order
BTEXHKOM	Text header for the first header text
BTEXLKOM	First text line for the first header text
BTEXLKOM	Second text line for the first header text
BTEXHKOM	Text header for the second header text
BTEXLKOM	First text line for the second header text
BTEXLKOM	Second text line for the second header text
BTEXLKOM	Third text line for the second header text
BVBPAKOM	Partner data
BVBPAKOM	Partner data
BVBPAKOM	Partner data
BVBPAKOM	Partner data
BVBAPKOM	Item 1 with one schedule line
BTEXHKOM	Text header for the first item text
BTEXLKOM	First text line for the first item text
BTEXLKOM	Second text line for the first item text
BTEXHKOM	Text header for the second item text
BTEXLKOM	First text line for the second item text
BTEXLKOM	Second text line for the second item text

Structuring Rules for the Sales Document Transfer File

BVBAPKOM	Item 2 with first schedule line
BVBEPKOM	2nd schedule line for item 2
BVBEPKOM	3rd schedule line for item 2
BVBAPKOM	Item 3 with first schedule line
BVBEPKOM	2nd schedule line for item 3
BVBAPKOM	Item 4 with one schedule line
BVBAKKOM	Header data in second sales order
BVBPAKOM	Partner data
BVBPAKOM	Partner data
BVBPAKOM	Partner data
BVBPAKOM	Partner data
BVBAPKOM	Item 1
BTEXHKOM	Text header for the first item text
BTEXLKOM	First text line for the first item text
BTEXLKOM	Second text line for the first item text
BTEXHKOM	Text header for the second item text
BTEXLKOM	First text line for the second item text
BTEXLKOM	Second text line for the second item text
BVBAPKOM	Item 2
BTEXHKOM	Text header for the first item text
BTEXLKOM	First text line for the first item text
BTEXLKOM	Second text line for the first item text
BTEXLKOM	Third text line for the first item text
BTEXHKOM	Text header for the second item text
BTEXLKOM	First text line for the second item text
BTEXLKOM	Second text line for the second item text
BVBAKKOM	Header data in third sales order
BVBPAKOM	...
BVBPAKOM	...
BVBPAKOM	...
BVBPAKOM	...
BVBAPKOM	
BVBAPKOM	

Direct Input and Correction of Errors

Transfer sales documents automatically using the direct input process. There are two ways to start direct input:

- Start direct input immediately

- Direct input with background processing

Start direct input immediately

Execute this type of direct input using the function Testing the Data Transfer [Ext.]. SAP recommends this process, especially during the testing phase. You can generate test data from sales documents already available in the system, and then transfer the prepared test data directly into the R/3 System, that is, in the online site.

Flow trace and correction of errors

The system outputs a flow trace. This lists which data was transferred and which data could not be transferred. If data could not be transferred, this is explained in detail in an error message. For each note in the flow trace, the system includes the document and item number that was transferred into field OLDNR in the data records.

Either manually enter data that was not transferred, or process it when you run the program at a later date (with improved input data).

Direct input with background processing

Execute this type of direct input using the function Executing the Data Transfer [Ext.]. SAP recommends this process when you actually transfer the data. As well as reducing the system load, this process has the following advantages:

- with the help of a log, logical errors (for example, missing material) can be corrected, and posted subsequently

- If program terminations (for example, syntax fields in the program) occur during data transfer, then data transfer can restarted from the point at which it was terminated

Access the direct input transaction in the Data Transfer Workbench. Proceed as follows:

1. On the initial screen of the direct input transaction, choose *Job administration* → *Execute.*

2. To create a new background job, choose *Applications* → *Sales documents* → *Define job.*

3. Enter the job name, short description, program, and variant, as well as the server name.

    If you have generated test data, make sure that you enter the server on which the test data was generated.
    You can define variants using the *Variant maintenance* function. You can find further information on defining variants in the R/3 Libraby, under General Information: *Getting started with R/3.*

4. Choose *Goto* → *Back*.

5. Choose *Applications* → *Sales documents* → *Start new job.*

6. You can start the job immediately, or set values for the job to start on a specific date. Note that the program does not currently enable you to start transferring sales document data periodically.

7. Use the direct input administration to follow the processing status of your jobs. Choose *Job administration → Job details.* Jobs may have the following status:

    – S (processing started)

    – A (job terminated)

    – C (job completed without any logical errors)

    – E (job completed without logical errors)

Correction of Errors

If any errors occurred in direct input with background processing, correct them by:

-
-

Restart Job

Prerequisites

If the job terminates, you can reset it from the Direct Input: Administration screen. The system will continue to transfer data from the point at which the job terminated.

Procedure

To reset a job, proceed as follows:

1. Select the job.

2. Choose *Job administration → Restart job.*

Correct and Update Errors

Prerequisites

If logical errors occur in your job, you can use a detailed job log to find the errors in the SAP System, correct them and update them.

Procedure

1. Place the cursor on the job and choose *Applications → Sales document → Display log*.

   You can analyze the errors in the job log.

2. To correct the errors, place the cursor on the job in Direct Input: Administration and choose *Applications → Sales documents → Correct log. errors.*

3. To carry out an update, place the cursor on the job in Direct Input: Administration and choose *Applications → Sales documents → Correct errors*.

   If logical errors reappear, you can process the erroneous data and carry out another update. You can repeat this process until all the errors have been corrected and all sales documents have been transferred.

Conditions

The documentation for transferring conditions from a legacy system is structured as follows:

- The **information sheet** contains a table of the most important technical information that you require to transfer data.

- The **process flow** describes the data transfer process in individual steps.

- The **structuring rules** contain all the information required for creating a data transfer file.

- The section on batch input provides a step-by-step description on how to carry out the data transfer program.

Conditions Data Transfer Information Sheet

A. Object Profile

Object Name and Identification

Name of application object	Condition (prices, surcharges and discounts, freights, taxes)
Description of business objects (BOR object)	BUS3005
DX Workbench object and, if required, subobject number(s) (DX Workbench <= 4.5)	0070
Change document object supported?	yes (COND_A)
Long text object	not supported
Data category	Master data?
Number assignment	Internal (KONH)
SAP field available for number in legacy system?	not planned/necessary

Transactions

Create	XK15
Change	not relevant, as batch input
Display	not relevant, as batch input
Delete	not relevant, as batch input

Further Programs

Reports to analyze and display transferred data.	none
Deletion program available for mass data or cancellation function?	only using archiving (SD_COND)
Change program available for mass data? Can the mass tool be used here?	only online, via standard order, for example. VK12

Tables/Databases

Relevant tables	Axxx (xxx = 001-999), KONH, KONP, KONM, KONW
Logical databases	no
Tablespace	From approx. 0,7 KB, depending on variable key and data part (plus memory for additional conditions and scale data)

Customizing

Customizing activities influencing the data transfer.	none

B. BI Information

Time and Sequence

Time of transfer	as wished, as master data
Interdependencies with other data	All master data for key fields in relevant condition tables, for example, plants, materials, customers.

SAP Notes

0024380	Termination due to konp-konwa
0052608	Termination due to scales
0093058	Large data quantities, roll area. Modification
0102427	Termination
0104077	Performance
0162027	Problems with small letters

All notes on batch input can be searched for using RV14BTCI.

B. BI Information

BI transfer program	RV14BTCI
Restrictions and specific notes	The following are not supported: • condition supplements • VADAT fields • all fields in the KONH/KONP which are not in the BKOND2 structure The calculation type is only transferred from Customizing for the condition type.
User exits or Business Add-Ins available?	no
Program for generation of test data	RVBTCI01
Append structures	none
Z structures	none
NODATA characters	yes, recommendation "/"
RESET characters	does not apply, as only initial date creation

D. EDI Information

Output category	COND_A

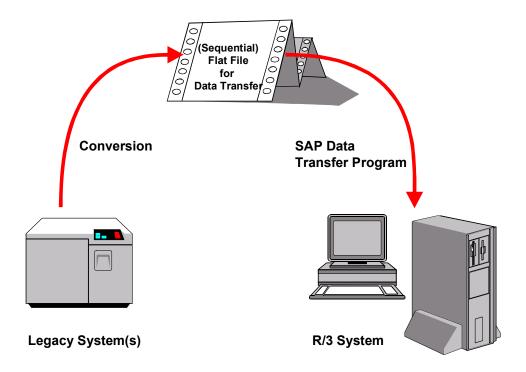| IDoc type/basic type	COND_A01, COND_A02 (from Release 4.6A incl. multidimensional scales)
EDIFACT output category	PRICAT
Processing program	IDOC_INPUT_COND_A
Restrictions and specific notes	Only initial data creation of records is possible In this way, when the validity period is shortened in the source system, there are, for example, two vaildity periods for this record in the target system, after recording.

Process Flow for Data Transfer of Conditions

Purpose

You can use the following process flow for transferring conditions from a legacy system to the R/3 System automatically.

Process Flow

During the transfer of conditions, data from the legacy system are converted into a sequential data transfer file and then transferred to the R/3 System with the SAP transfer program - RV14BTCI. The data transfer file contains data in a format that is both suitable for SAP and necessary for transferring data successfully.

Conditions are transferred in the following sequence:

1. Identify the Relevant Fields [Ext.]

    ➡️

    We recommend that you create a condition record to check the fields in the R/3 System. For more information about creating condition records, see Creating Condition Records [Ext.].

2. Analyzing the Transfer Structure [Ext.]

    Note the structuring rules for the conditions transfer file.

3. Create a Sample Data Transfer File [Ext.].

Alternately, you can create test data [Ext.] for the conditions and create an example data transfer file from condition records that already exist in the system.

4. Test the Data Transfer Program [Ext.]

5. Analyze the Legacy Data [Ext.]

6. Assign Fields [Ext.]

7. Write a Conversion Program [Ext.]

8. Prepare the Legacy System [Ext.]

9. Test the Data Transfer [Ext.]

10. Execute the Data Transfer [Ext.]

11. Create Batch Input File for the Transfer [Page 27]

Result

The conditions are transferred to the R/3 System.

Structuring Rules for the Conditions Transfer File

General Structuring Rules

Use the relevant special indicator to select the fields in the sequential file that should not be filled. The special indicator for the object is /.

The following table structures describe the record layout for transferring data to condition records:

- BGR00 (record category 0) session record

- BKOND1 (record category 1) header data

- BKOND2 (record category 2) header data

- BKOND3 (record category 3) scales data

Create Batch Input File for the Transfer

Prerequisites

You need to write the legacy data in a sequential file and make this file available in the SAP System.

Procedure

1. Create the batch input file for the transfer.

   Enter the name and path for the sequential file in which you have read the data from the previous system. In the test transfer, you can only check that the file has been generated. A file is not created if you enter the relevant indicator in the initial screen.

2. Make sure that the file has been processed.

   You can find more information about the batch input files in the BC System Administration help file.