

THE ULTIMATE CHEAT SHEET

— ON —

SAP SD DATABASE ARCHITECTURE



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Often, you would need to understand the technical aspect of how things are structured to really appreciate an application. SAP is no different. However, there are many functional areas and understanding the entire database structure for massive software like ECC in a single go is an uphill task. Hence, it is better to go via each functional area. In this article, I attempt to cover the important database tables for SAP Sales and Distribution.

This is especially useful for someone who is new to SD or has been working on the functional side and would want to understand it from the database point of view. Moreover, I am structuring the tables in a sequential manner which will help you in navigating easily as well as remembering them. Please note that the focus here is on understanding and building confidence instead of width and coverage.

ENTERPRISE STRUCTURE

You cannot start with the application until and unless you have an enterprise structure in place. This article doesn't want to go into the topic but it lists out the database tables in this regards.

S.NO	TABLE	REMARKS
1	TVKO	This has the Sales Organization definition and details of its currency and address. VKORG field of this table is one of the crucial element of other SD tables.
2	TVKOV	This table has all the distribution channels for Sales Org
3	TVKOS	This table has all the divisions allowed for sales Org
4	TVAKZ	This table has all the allowed Order types for the Sales Org
5	TVTA	This table has possible combination of Sales Org / Distribution Channel / Division i.e. Sales area

MASTER DATA

Once enterprise structure is created, you must understand the master data and how it relates the enterprise structure which we have discussed above.

S.NO	TABLE	REMARKS
2	KNA1	This table has the customer related master data
3	MARA	This table has material master related information
4	KNVV	Sales Area data for the customer is stored in this table.
5	MVKE	Sales Area data for material master is stored in this table.

TRANSACTION DATA

When documents are created within organizational units and pertaining the master data that we discussed above. The tables which are listed below can contain a lot of records and unlike the first two sets, their size can be huge.

S.NO	TABLE	REMARKS
1	VBAK	It contains all the sales document headers. Important fields are VBELN (the sales document number), VBTYP (what kind of sales document it is, for example, Quote, Order, Delivery or Invoice etc), AUART (Sales Document Type), KNUMV (link to the conditions).
2	VBAP	VBAP contains the document line items. Important fields in this table are VBELN (link to the header), POSNR (Line item number), CHARG (batch number), PSTYV (Item Category)
3	LIKP	This contains the header information for the delivery document. Notable fields are LFART (Delivery Type), LFDAT (Delivery date), KODAT (Picking Date), LPRIO (Delivery Priority), VSBED (Shipping Conditions)
4	TVAKZ	This table contains the line item information on delivery. The key fields are VBELN, POSNR, PSTYV, WERKS (Plant), LGORT (Storage location), CHARG (batch number).

S.NO	TABLE	REMARKS
1	VBRK	The table has header information on the billing documents. The key fields are VBELN, FKART (Billing Type like Cash Sales, Proforma, Invoice etc), FKTyp (Billing Category like Order related billing, Accrual, Delivery related billing), VBTYP (SD Document Category like Credit Memo, Invoice Cancellation, Debit Memo, Invoice etc).
2	VBRP	This has billing document line item information. It has fields like VBELN, POSNR, FKIMG (Invoiced Quantity)

CHANGE POINTERS

Whenever you change a sales document, the information is automatically logged within SAP in standard SAP tables. The following two tables are a key if you want to report changes done by a user.

S.NO	TABLE	REMARKS
1	CDHDR	Change header table contains the changes done to an object. You can search changes to a document by giving OBJECTID as the document number. Please note that you would need to give complete document number. Once you give this you can get the CHANGENR.
2	CDPOS	From the CHANGENR, you can derive all the changes done using this table. You can see the TABLE NAME, FIELD its previous value and changed value from this table. You can also see who changed the value and what date and time were the values changed.

CONCLUSION

Understanding the database tables can help you quickly search and link the tables with each other and investigate support issues. At times, you may be able to find quick solutions to your functional problems if you look into the underlying tables and find out what may be causing the problem.

I sincerely hope that you found this article concise yet helpful. I would be more than willing to answer any queries that you may have. Please drop in your suggestions below and I will get back to you.

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