

SAP FI-MM-SD INTEGRATION A SPECIAL REPORT

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FI – MM (Material Management) integration:-

Today we will learn how the integration within FI MM , and SD takes place .

How are Accounting entries posted automatically and how do we configure them?

There are certain simple things you need to understand to know how this integration happens.

First all Materials in SAP have a material master.

This material master has various views right from Basic views to Purchasing views, production, sales and distribution and accounting and controlling views. We will not get into the detail of Material master at this stage but it would suffice for us to understand that Material Master is the heart of all integration.

In the accounting view of Material master amongst other values we have a **Valuation Class field**. This Valuation class is the vital link which ensures that Accounting documents are posted automatically. Every material will have a valuation class field.

You can go to transaction code mm03 put any material no and click on Accounting 1 view on which you will find the Valuation Class field.

Examples of Valuation Class could be Finished Goods, Semi Finished goods, Raw Material etc

The combination of this Valuation Class+ the Movement Type(which I have defined below) helps in determining the GI accounts. Read this statement twice to understand how gi accounts are automatically updated

What is a Movement Type?

All Material movements in MM happen with respect to a Movement Type.

For eg Goods receipt is defined with movement type 101
Goods issue to production order is defined with movement type 261
Scrapping of goods is defined with movement type 551
Goods delivered to the customer with movement type 601
Initial upload of stock is defined with movement type 561

SAP helps us to have different gi accounts for the various movements for the same material by linking this movement type to a transaction key. So where do we do we go and fit in all the different GI accounts which we require?

Before we get into that let us take an example of a movement type and see how GL accounts are automatically updated. If you are with me till now lets move ahead. If not I suggest you read the above page once again. All right lets get going dear friends.

Quick recap.

Material Master->Valuation Class->Movement Type-Transaction key.
Stick in all the gl accounts at this place. How we do this will see very shortly.

Let us now understand a few MM transactions and its accounting integration:-

1) Goods Receipt of Raw Material against a purchase order:-

Movement type for **goods receipt against purchase order is 101.**

The accounting entry posted is as follows:-

Inventory of Raw Material **Debit**

GR/IR (Goods Receipt/Invoice Receipt) **Credit**

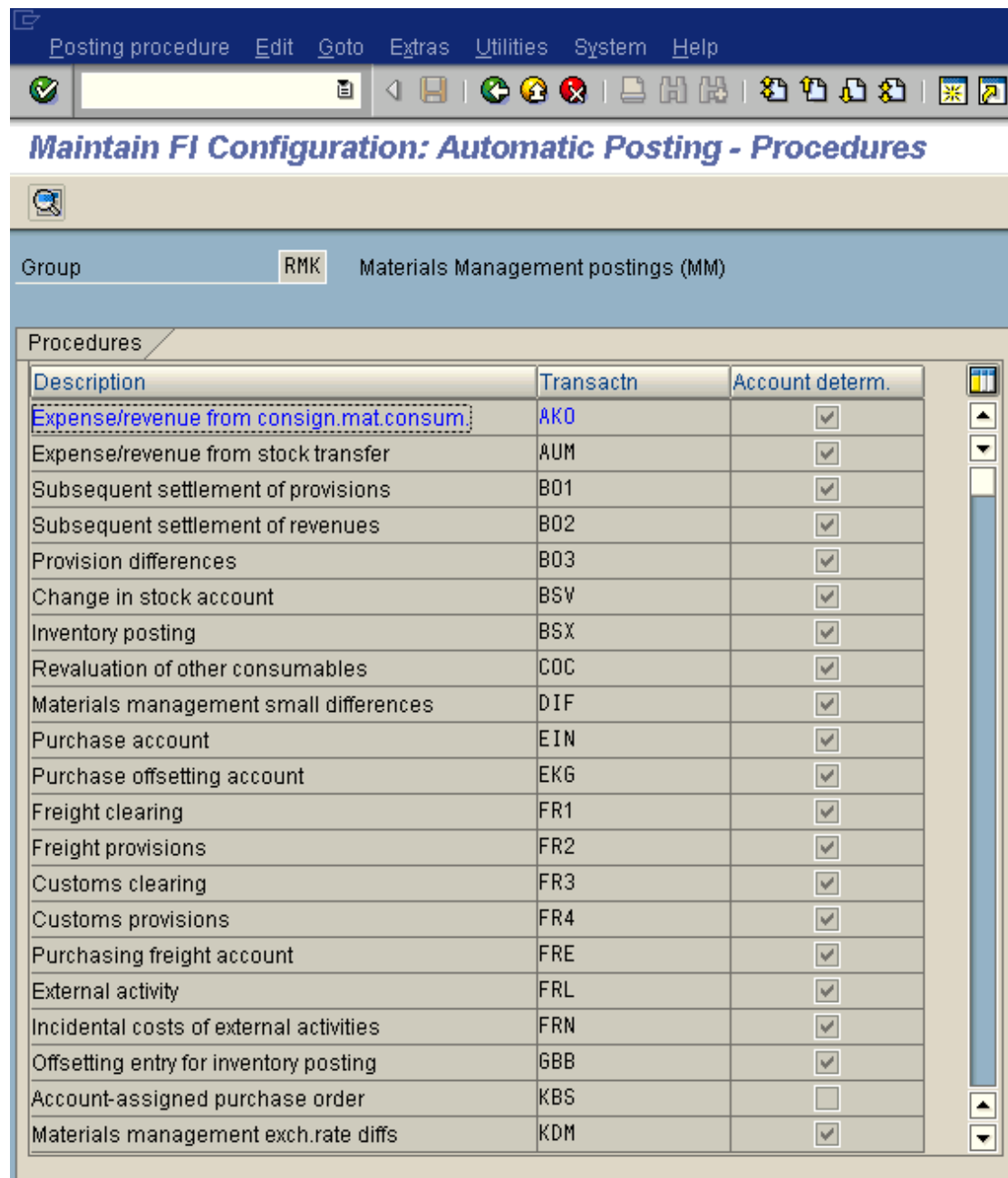
The GR/IR is a provision account in SAP.

The configuration to be done for this entry is as follows:-

IMG → Materials Management → Valuation and Account Assignment → Account Determination → Account Determination Without Wizard → Configure Automatic Postings (OMWB)

Or

Type in transaction code OBYC



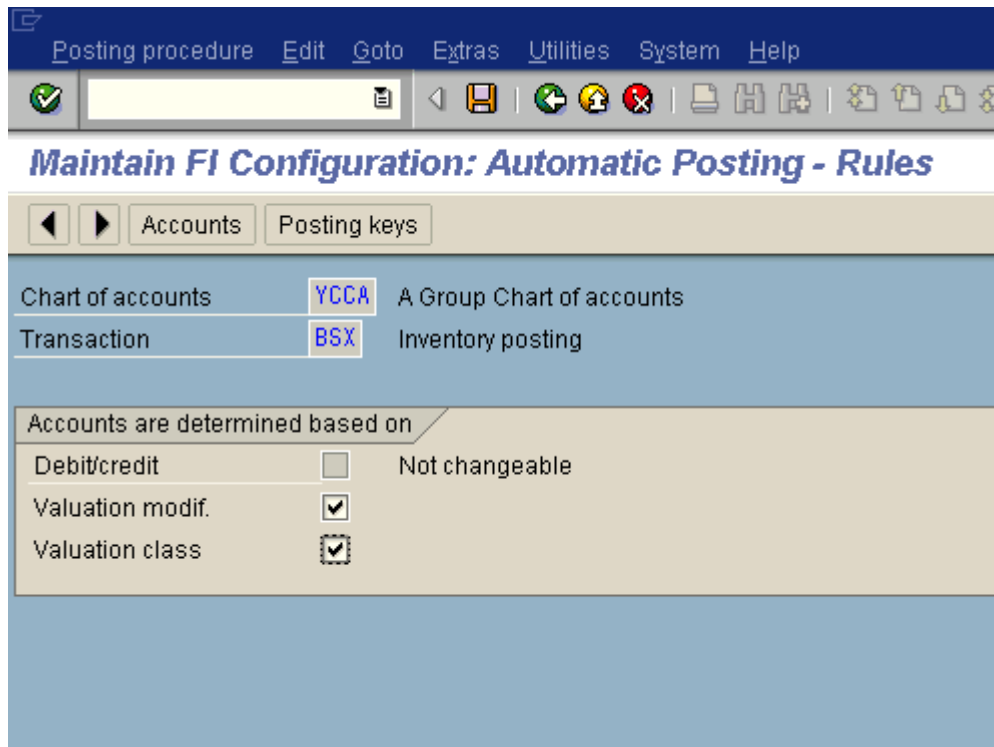
Description	Transactn	Account determ.
Expense/revenue from consign.mat.consum.	AKO	<input checked="" type="checkbox"/>
Expense/revenue from stock transfer	AUM	<input checked="" type="checkbox"/>
Subsequent settlement of provisions	B01	<input checked="" type="checkbox"/>
Subsequent settlement of revenues	B02	<input checked="" type="checkbox"/>
Provision differences	B03	<input checked="" type="checkbox"/>
Change in stock account	BSV	<input checked="" type="checkbox"/>
Inventory posting	BSX	<input checked="" type="checkbox"/>
Revaluation of other consumables	COC	<input checked="" type="checkbox"/>
Materials management small differences	DIF	<input checked="" type="checkbox"/>
Purchase account	EIN	<input checked="" type="checkbox"/>
Purchase offsetting account	EKG	<input checked="" type="checkbox"/>
Freight clearing	FR1	<input checked="" type="checkbox"/>
Freight provisions	FR2	<input checked="" type="checkbox"/>
Customs clearing	FR3	<input checked="" type="checkbox"/>
Customs provisions	FR4	<input checked="" type="checkbox"/>
Purchasing freight account	FRE	<input checked="" type="checkbox"/>
External activity	FRL	<input checked="" type="checkbox"/>
Incidental costs of external activities	FRN	<input checked="" type="checkbox"/>
Offsetting entry for inventory posting	GBB	<input checked="" type="checkbox"/>
Account-assigned purchase order	KBS	<input type="checkbox"/>
Materials management exch.rate diffs	KDM	<input checked="" type="checkbox"/>

As you see above the second column contains all the Transaction keys where you need to stick the GI accounts. So lets see for the goods receipt transaction what do we do.

You need to update the **BSX** transaction key with the GL code **Inventory of Raw material account**.

Double click BSX and select Valuation modif. and valuation class.

Valuation modif. - Should be selected if the valuation grouping code is active in the Materials Management module and if separate GL codes are desired plantwise. Even if it is not required currently, still it is a better option to select.



For the GR/IR account you need to update the **WRX** transaction key with the GL code GR/IR account.

A very important point from now on. Every accounting entry with respect to a material will have an impact on the inventory. So one side of the posting (either a debit or a credit) will always be taken from the BSX field you have defined above. The second side of the posting will be determined based on your movement type which in the above case was a GR/IR.

If you understood example 1 you will understand all the other examples. As the methodology of finding GI accounts is the same. So dear friends if you want to learn SAP quickly you should learn how the things are integrated and not go through reams of material and keep on studying. Understand those vital areas and you will learn quickly. Alright let's move on.

We will go through more examples below:

2) When Raw material is issued to the production order.

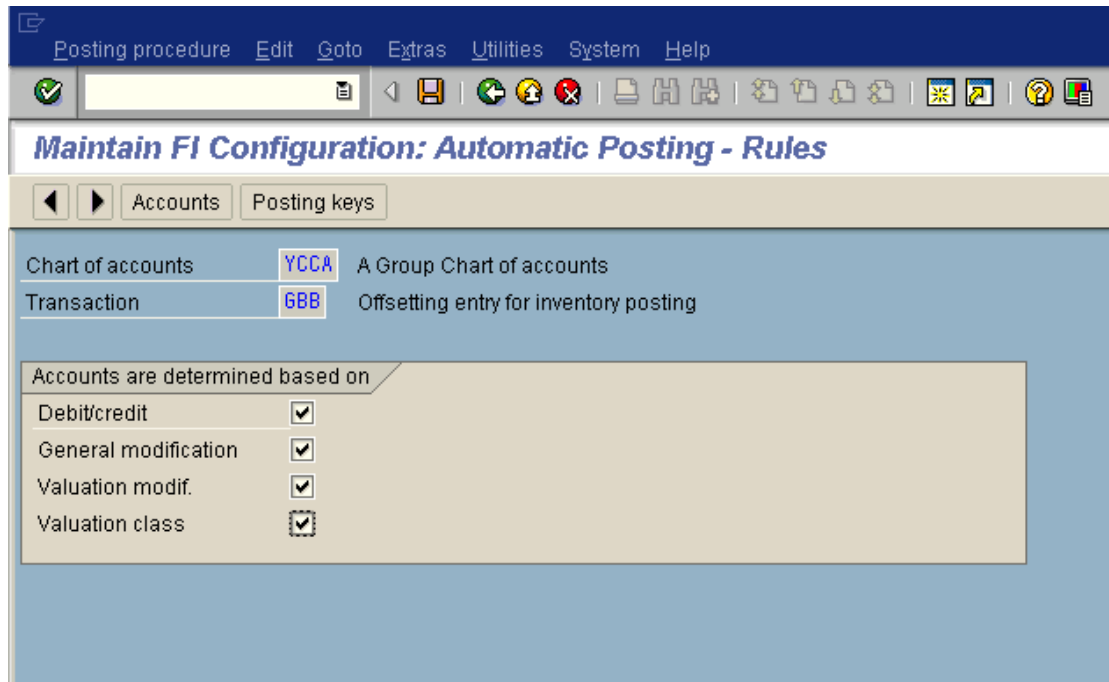
Movement type used for posting the above transaction is **261 – Goods issue to order**

The accounting entry generated in the system is:-

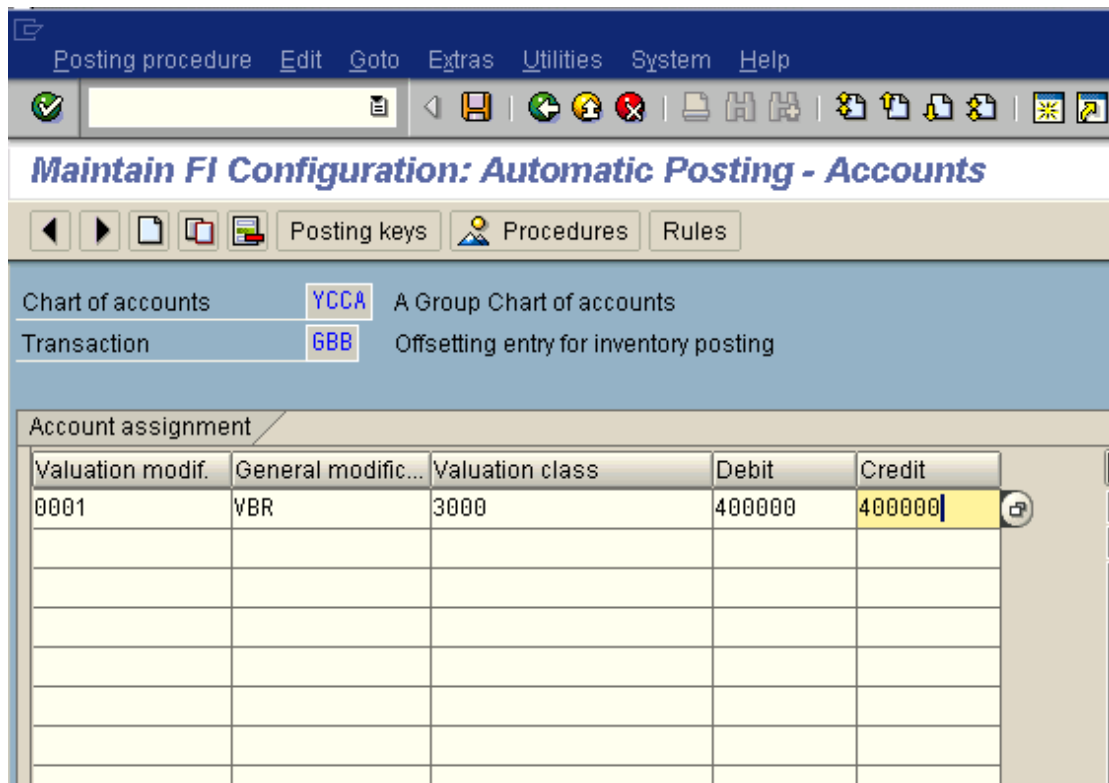
Raw material consumption **Debit**

Inventory of Raw Material **Credit**

The transaction Key GBB needs to be updated. GBB key is used for various offsetting posting entries. Within GBB transaction there are various account grouping (general modification). In this case you need to update general modification **VBR** with the Raw Material consumption account.



Click on 



Click on 

3) When Initial stock is uploaded for Raw Material

Movement type used for posting – 561 (Initial stock upload)

The accounting entry generated is as follows:-

Inventory of Raw Material **Debit**

Stock data takeover account **Credit**

The transaction key GBB needs to be updated. General modification Key **BSA** needs to be updated with the GL code **Stock data takeover account**

4) When goods receipt is made for finished goods against a production order

Movement type used for posting – 101 (GR agst prod order)

The accounting entry generated is as follows:-

Finished goods **Debit**

Change in Finished goods **Credit**

In transaction key **BSX** for the valuation class finished goods we attach the Finished goods GL code.

For change in Finished goods we update transaction key **GBB** and general modification key **AUF**.

5) When goods issues are posted for sales:-

Movement type used for posting – 601

Accounting entry posted:-

Cost of goods sold **Debit**

Inventory of Finished goods **Credit**

For cost of goods sold transaction key **GBB** is updated with general modification key **VAX**

6) When goods are scrapped:-

Movement type use for posting – 551

Accounting entry posted:-

Raw material scrapped **Debit**

Inventory of Raw Material **Credit**

The Raw Material scrapped account is attached to transaction key **GBB** and general modification key **VNG**

7) When goods issued to sampling for Quality

Movement type used is 331

Raw Material consumption **Debit**

Inventory raw material **Credit**

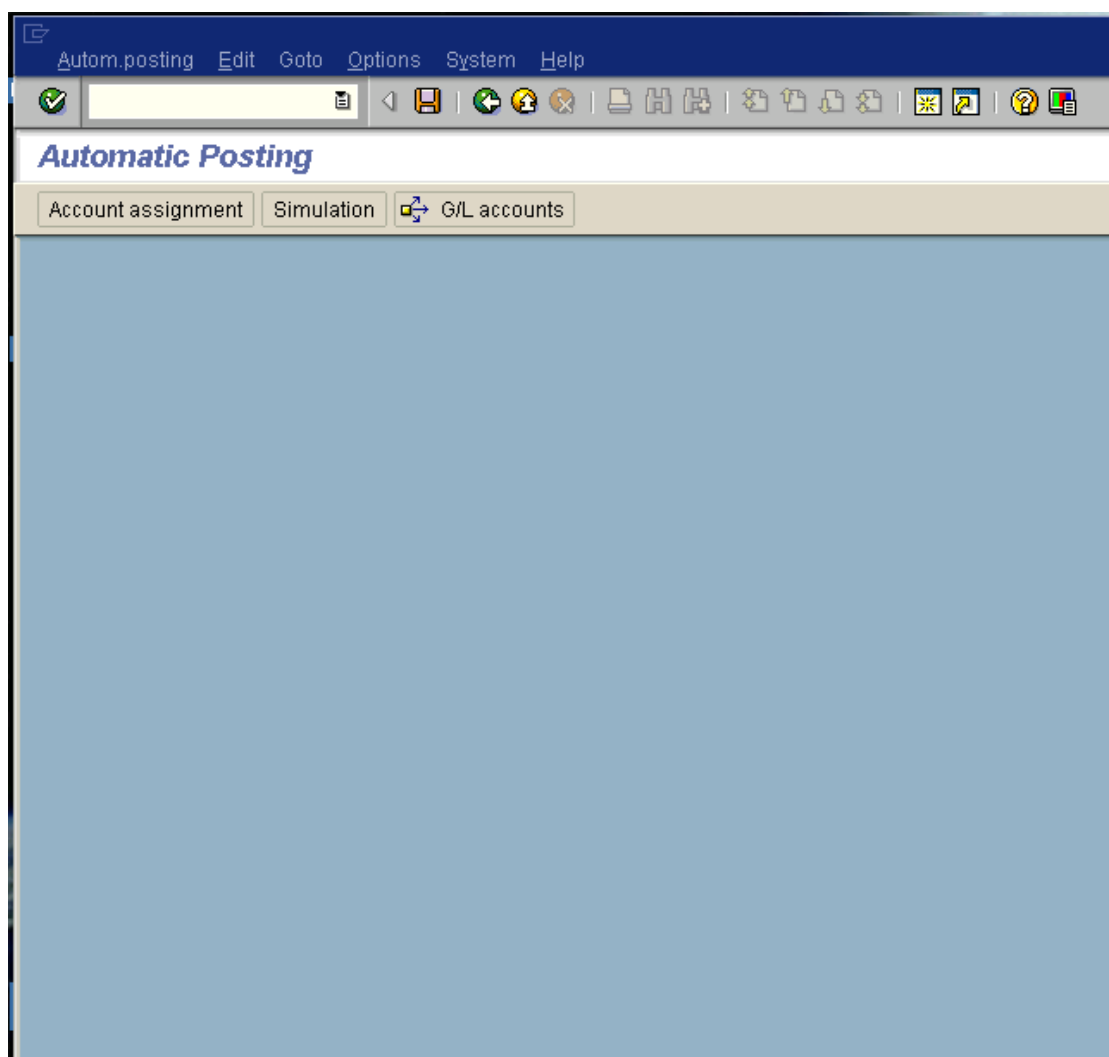
Raw Material consumption account is attached to **GBB** and general modification key **VQP** is used.

If you noticed lot of account modifiers in transaction key GBB are used in various movement type. It is difficult to remember the standard account modifiers. In that case we can also use the **Simulation mode**. This helps us in identifying what are the general modification (account modifiers) used in GBB:-

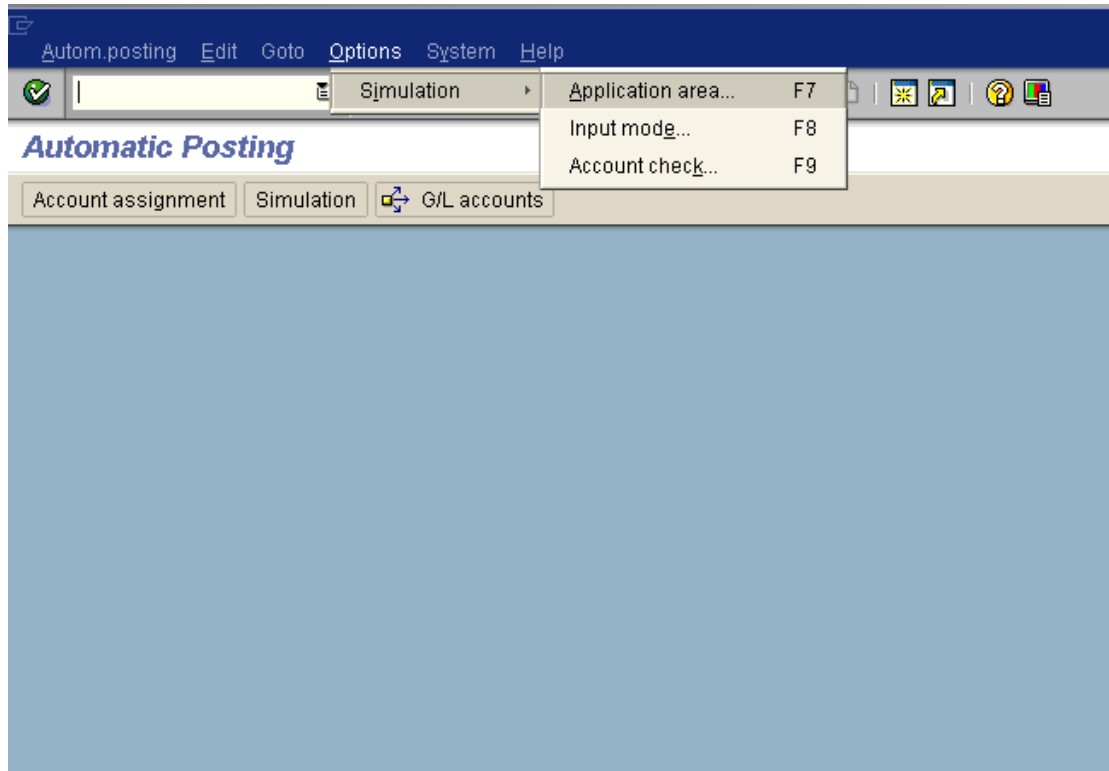
Use the following path:-

IMG → Materials Management → Valuation and Account Assignment → Account Determination → Account Determination Without Wizard → Configure Automatic Postings **or**

Transaction code: OMWB

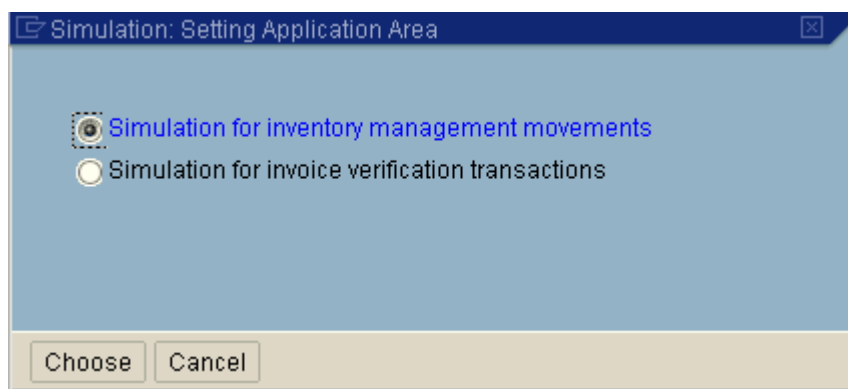


You can select the application area as follows:-

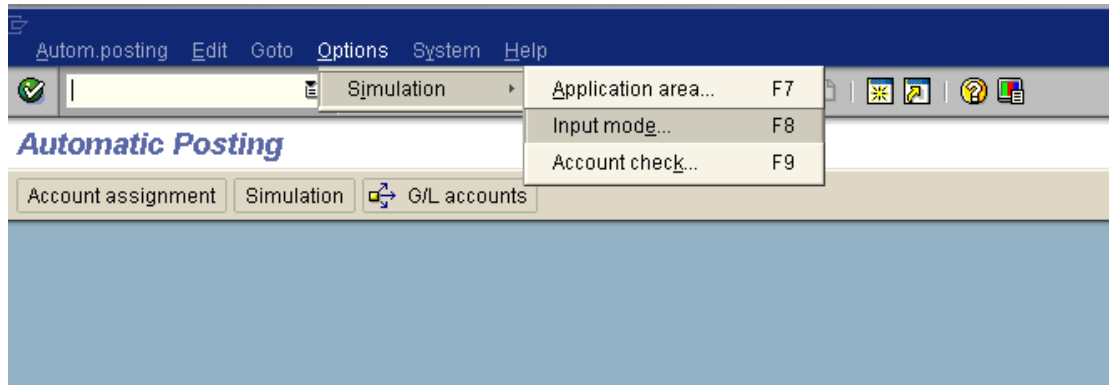


Thus you can do a simulation for Inventory management movements or also a simulation for invoice verification transactions.

Let us do a simulation for Inventory management movements.

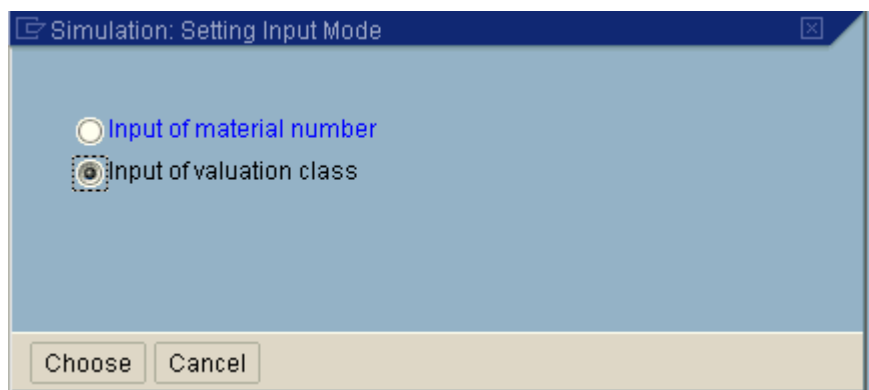


Now we select the input mode



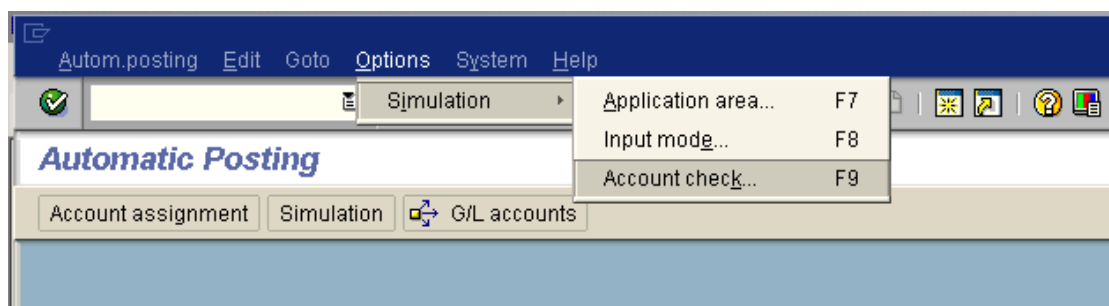
Here we can select the input of material number or input of valuation class.

We will select the input of valuation class, as it easier to enter valuation class rather than material number. But if you want to be more specific you can select the input of material number.



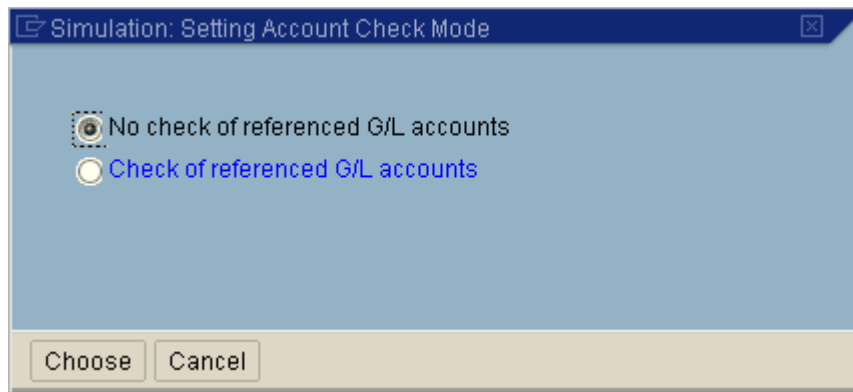
Click

Further we will also select Account check



Here we select, whether we want check of referenced G/L accounts in the company code. Currently we will not select this.

Click



Click 

Update the following:-

The screenshot shows the SAP Simulation software interface. At the top, there is a menu bar with 'Simulation', 'Edit', 'Goto', 'Options', 'System', and 'Help'. Below the menu bar is a toolbar with various icons. The main title of the window is 'Simulate Inventory Mgmt: Entry of Simulation Data'. Below the title, there are several buttons: 'Choose', 'Account assignments', 'Movement type +', and 'Movement type -'. The main area is divided into sections. The first section is 'Plant' with a value of '9100' and a description 'Plant A.'. The second section is 'Valuation class' with a value of '3000' and a description 'Raw materials'. The third section is 'Movement types', which is currently expanded to show a list of movement types. The first item in the list is 'GI for order', which is highlighted with a blue background. Below it are several other movement types, including 'GI for order', 'GI order fm. sls.or.', 'GI order from consgt', 'GI order from consgt', 'GI order fm.pipeline', 'GI order fm.pipeline', 'GI order fm. project', 'GI order fm. project', 'GI order fm.cu.cons.', and 'GI order fm.cu.cons.'.

Double click **GI for order** so that it becomes blue

Simulation Edit Goto Options System Help

Simulate Inventory Mgmt: Entry of Simulation Data

Choose Account assignments Movement type + Movement type -

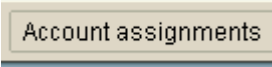
Plant 9100 Plant A.

Valuation class 3000 Raw materials

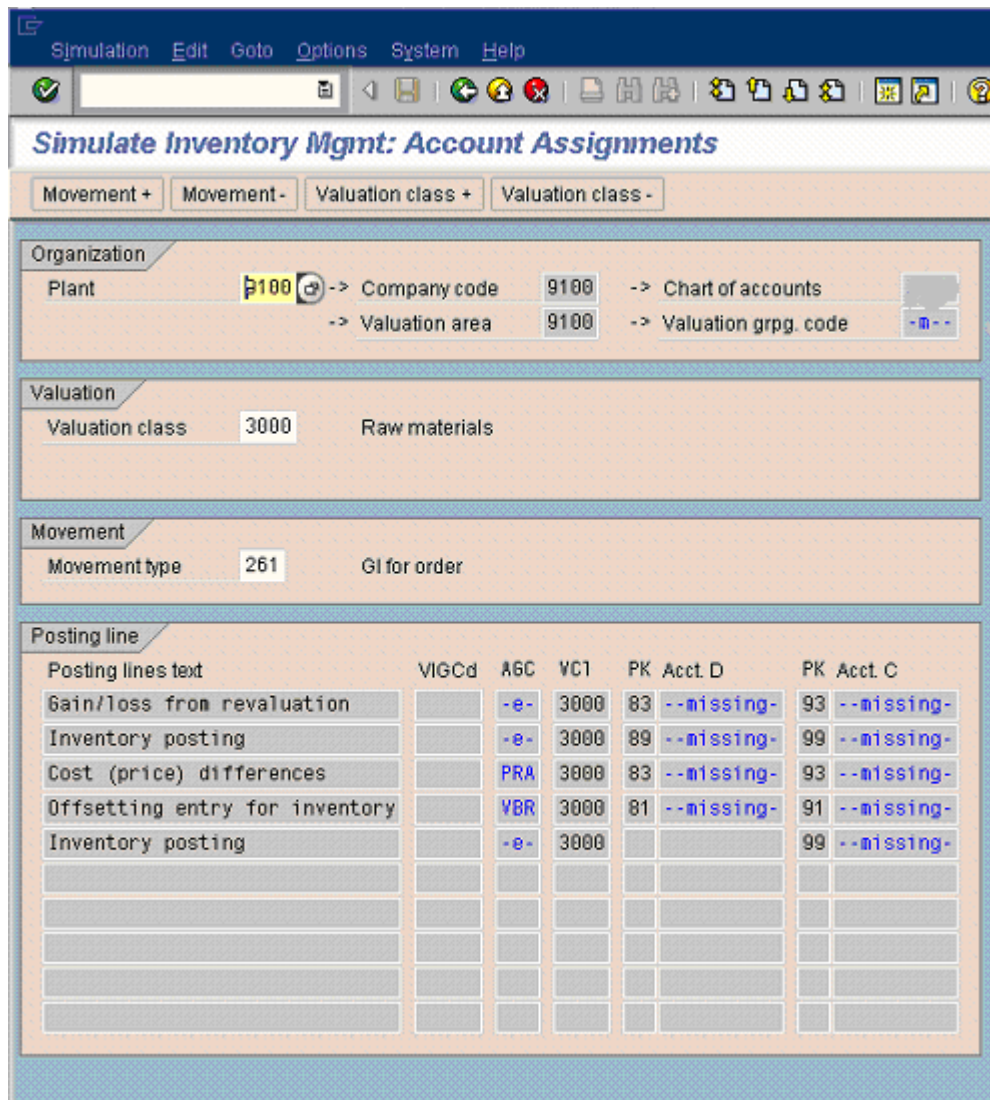
Movement types

Movement type 261 GI for order

GI for order
 GI for order
 GI order fm. sls.or.
 GI order fm. sls.or.
 GI order from consgt
 GI order from consgt
 GI order fm.pipeline
 GI order fm.pipeline
 GI order fm. project
 GI order fm. project
 GI order fm.cu.cons.
 GI order fm.cu.cons.

Click 

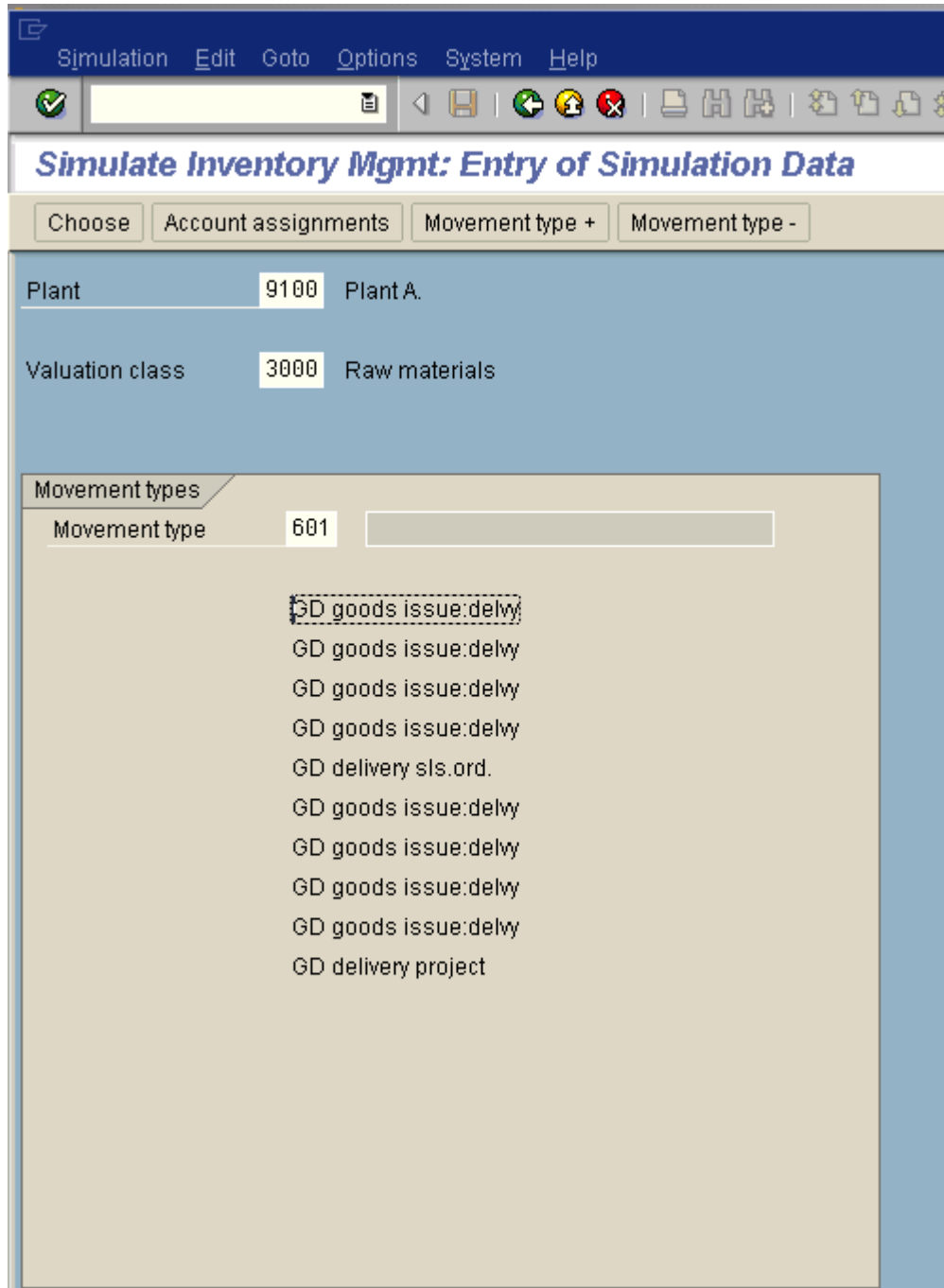
Now here it shows the offsetting entry posting and the required account modifier. In this case the general modification required is VBR.



Thus simulation helps us in finding the general modification required for transaction key GBB and the general modification for transaction key PRD (price difference).

Let us now check the general modification key required for movement type 601 for finished goods.

Update the following:-



Double click GD goods issue:dely

Simulation Edit Goto Options System Help

Simulate Inventory Mgmt: Entry of Simulation Data

Choose Account assignments Movement type + Movement type -

Plant 9100 Plant A.

Valuation class 3000 Raw materials

Movement types

Movement type 601 GD goods issue:delvy

- GD goods issue:delvy
- GD goods issue:delvy
- GD goods issue:delvy
- GD goods issue:delvy
- GD delivery sls.ord.
- GD goods issue:delvy
- GD goods issue:delvy
- GD goods issue:delvy
- GD goods issue:delvy
- GD goods issue:delvy
- GD delivery project

Click Account assignments

Here we notice that general modification key required for 601 is VAX

Simulation Edit Goto Options System Help

Simulate Inventory Mgmt: Account Assignments

Movement + Movement - Valuation class + Valuation class -

Organization

Plant **1100** -> Company code **9100** -> Chart of accounts
 -> Valuation area **9100** -> Valuation grpg. code **-1--**

Valuation

Valuation class **3000** Raw materials
 Posting string **WA01** Value updating
 Quantity updating

Movement

Movement type **601** GD goods issue/deliv

Posting line

Posting lines text	VIGCd	AGC	VCT	PK	Acct. D	PK	Acct. C
Gain/loss from revaluation		-e-	3000	83	--missing-	93	--missing-
Inventory posting		-e-	3000	89	--missing-	99	--missing-
Cost (price) differences		PRA	3000	83	--missing-	93	--missing-
Offsetting entry for inventory		VAX	3000	81	--missing-	91	--missing-
Inventory posting		-e-	3000			99	--missing-

FI – SD account determination:-

All Billing transactions happening in the Sales and distribution module will result in FI postings.

All accounting entries with respect to the billing will have one side of the account as a Customer or receivable and the other side to be a revenue account

Eg

Customer –Dr
To Revenue Account- Cr

You have to bear in mind that the customer account gets picked up from the customer master data . All we need to do is to configure the revenue account or the discounts and surcharges

Where and how do we do this?

You make the allocation for each of these through access sequences.

Access sequence is nothing but SAP's terminology of determining the GI accounts. SAP provides the following six ways of determining the GI accounts in SD.

- Application (key for the Sales and Distribution application)
- Account determination type
- Chart of accounts (from the FI System)
- Customer account assignment group
- Materials account assignment group
- Account key

The allocated accounts are used to post revenues, surcharges and discounts automatically.

IMG → Financial Accounting → General Ledger Accounting → Business Transactions → Integration → Sales and Distribution → Prepare Revenue Account Determination **or**

IMG → Sales and Distribution → Basic Functions → Account Assignment/Costing → Revenue Account Determination → Assign G/L Accounts **or**

The transaction can also be accessed by typing in transaction code VKOA from SAP Easy Access screen.

The account determination in SD happens through an access sequence which can be seen in the below table.

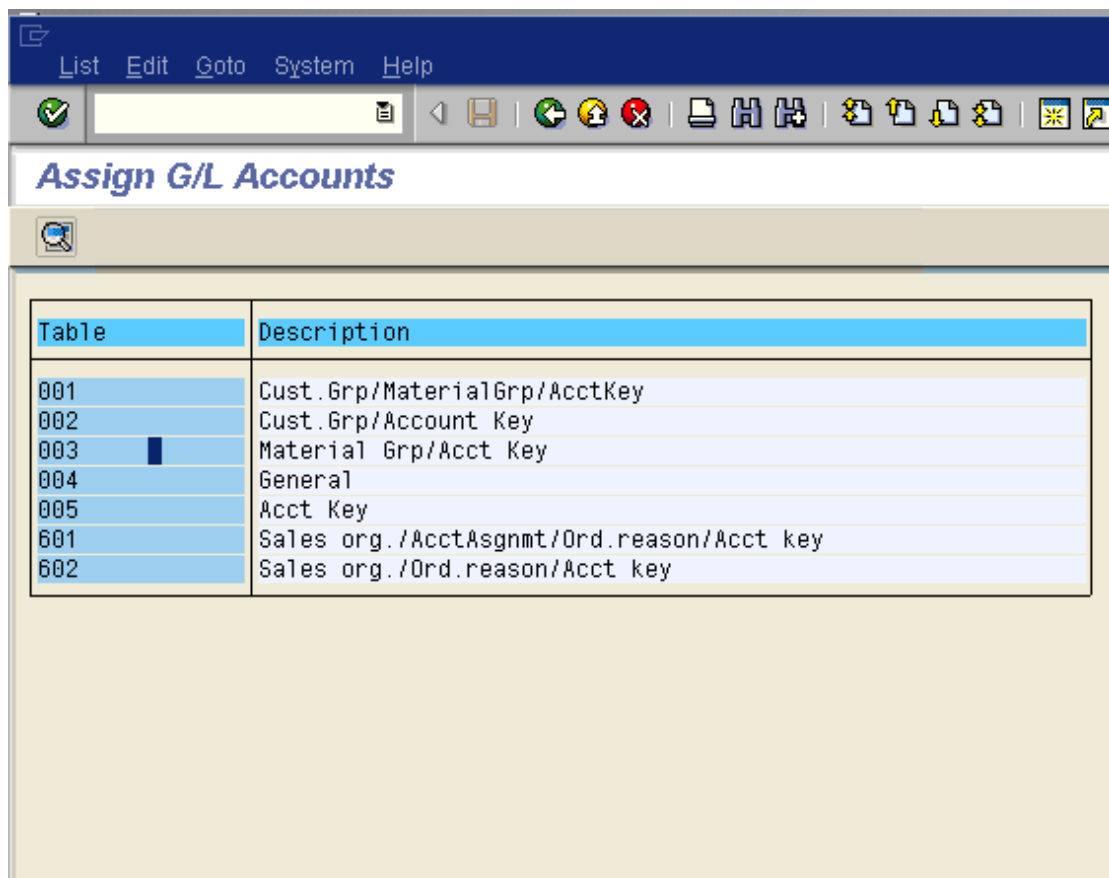


Table	Description
001	Cust.Grp/MaterialGrp/AcctKey
002	Cust.Grp/Account Key
003	Material Grp/Acct Key
004	General
005	Acct Key
601	Sales org./AcctAsgmt/Ord.reason/Acct key
602	Sales org./Ord.reason/Acct key

The system goes about checking for the gl account(which we will stick in here you will see more of that later) from more specific criteria to less specific criteria.

Thus you can maintain different GL codes for each combination of the above table entry.

This is how SAP will determine the revenue account:

It will go through first table entry CustGrp/Material grp/ account key. If any GI account is maintained here the system will then go to the transaction data of the particular billing document and see whether such a combination of Customer group and material group exists if it does it will pick that relevant Revenue account and post the accounting document . If it does not it moves to the next combination in the table which is Customer group/account key and so on and so forth

Customer grp is maintained in the Sales view of the customer master.

Material grp is maintained in the Sales view of the material master.

Account key is maintained in the pricing procedure for that condition type.

The last option it checks is account key entry

We will now maintain the GI account for the combination of Material Grp/account key

Double Click | Material Grp/Acct Key

AAG is the material grp. We maintain this since we want it to post to a different GL code as Sales 3rd parties.

Click on

Material Grp/Acct Key								
	App	CndTy.	Chart of ...	SOrg.	AAG	ActKy	G/L account	G/L account
	v	KOFI	YCCA	9100	13	ERL	800000	800000

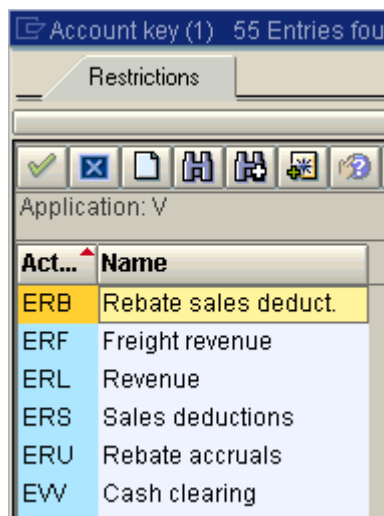
Click on

That's it . The system will look into this table see this combination and if the relevant combination exists in the transaction it will debit the customer account and credit this account 800000.

As simple as it is. So basically the FI-Sd integration is for picking up the revenue accounts or the discounts and surcharges.

The account key determines whether it is a revenue or a surcharge or discount. Examples of some are given down below:

Various account keys are available



Let us now maintain for the table entry account key. And post to a different GL code.

Click on

And update the following information

App : V (Sales/distribution)
 Cond type: KOFI (Account determination)
 Chrt/accounts: YCCA
 SOrg: Sales organization
 ActKey : ERL
 GL account no: 810203

App	CndTy.	Chrt/accts	SOrg.	ActKy	G/L account no.	G/L account no.
V	KOFI	YCCA	9100	ERL	810203	810203

Click on Save 

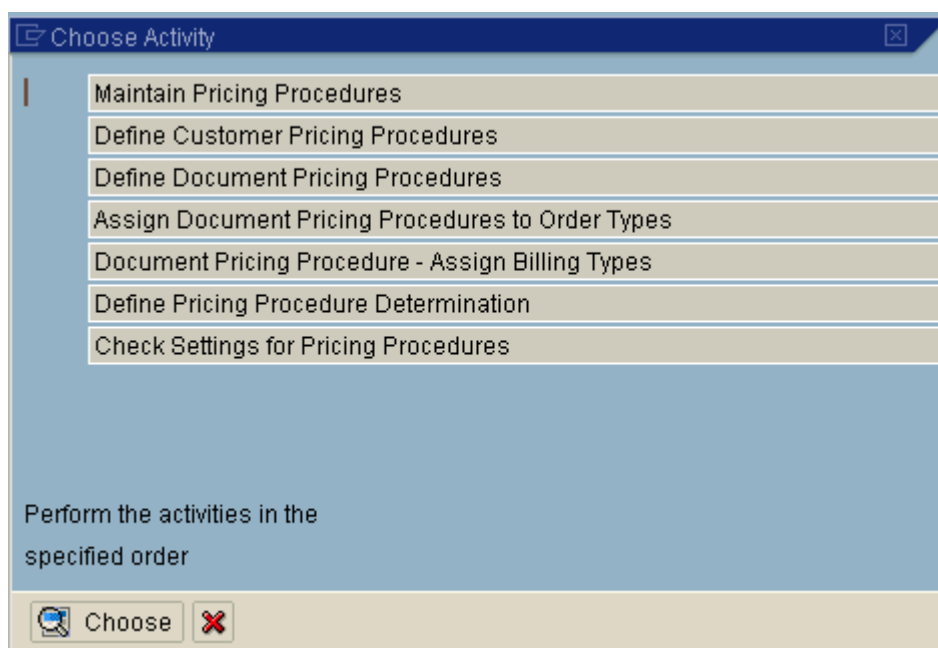
So you are done.

It is also useful to know a bit of the configuration of the **Sales and Distribution**.

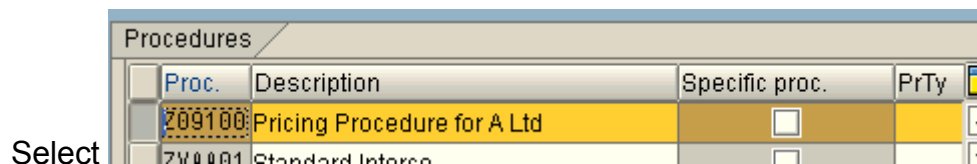
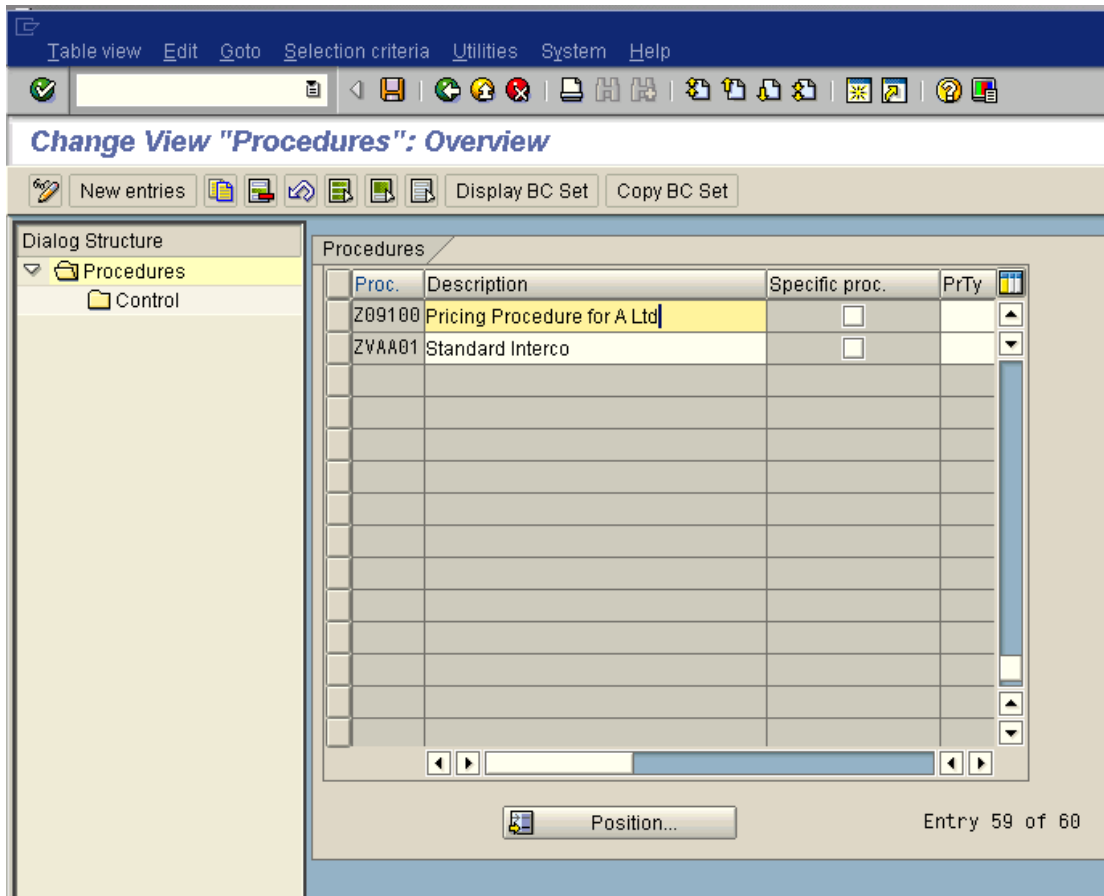
The account keys are attached to the condition type in the sales pricing procedure.

Let us see the sales pricing procedure.

IMG → Sales and Distribution → Basic Functions → Pricing → Pricing Control → Define And Assign Pricing Procedures



Double click **Maintain Pricing Procedures**



Double click **Control**

Here we see that account key ERL and ERS is attached to various condition types.

Change View "Control": Overview

Procedure: Z09100 Pricing Procedure for A Ltd

Step	Contr	CTyp	Description	Fro	To	Man.	Mdt	Stat	PSub...	Reqd	AltCTy	AltCBV	ActKy	AccrIs
8	0	EK01	Actual Costs			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					ERL	
11	0	PR00	Price			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		2			ERL	
13	0	PB00	Price (Gross)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		2			ERL	
20	0	VA00	Variant Price			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERL	
100	0		Gross Value			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X1		2			
101	0	KA00	Sales deal			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
102	0	K032	Price Group/Material			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
103	0	K005	Customer/Material			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
104	0	K007	Customer Discount			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
105	0	K004	Material			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
106	0	K020	Price Group			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
107	0	K029	Material pricing grp			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	
108	0	K030	Customer/Mat.Pr.Grp			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X	2			ERS	

Position... Entry 1 of 61

Change View "Control": Overview

Procedure: Z09100 Pricing Procedure for A Ltd

Step	Contr	CTyp	Description	Fro	To	Man.	Mdt	Stat	PSub...	Reqd	AltCTy	AltCBV	ActKy	AccrIs
900	0		Net Value 2			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		3		2		
901	0	B001	Mat/Group Rebate	400		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24			ERB	ERU
902	0	B002	Material Rebate	400		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24			ERB	ERU
903	0	B003	Customer Rebate	400		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24			ERB	ERU
904	0	B004	Hierarchy Rebate	400		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24			ERB	ERU
905	0	B005	Hierarchy rebate/mat	400		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		24			ERB	ERU
908	0		Net Value 3			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
909	0	PI02	Inter-company %			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	XB	22			ERL	
910	0	PI01	Inter-company Price			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	XB	22			ERL	
914	0	SKTV	Cash Discount			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	14		2		
915	0	MWST	Output Tax			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		10		16	MWS	
919	0	D1FF	Rounding Off			<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		13		16	4	ERS
920	0		Total			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A			4		

Position... Entry 40 of 61

So that's it then my dear friends. I hope you enjoyed reading it and it is my sincere advice that you absorb the technique with which SAP performs the transaction and the method rather than going through it in a hurry.

Good luck and take care. If you liked you can circulate this document to your friends and let them know about our full FICO package.

<http://www.sap-topjobs.com/SpecialPP/8431654231.html>