



## White Paper: SAP ECC 6 Account Determinations

by David A. Burns

### The Concept

Account determinations in SAP, also referred to as automatic account assignments, are pre-assigned G/L accounts used in specific business transactions. For practical purposes, account determinations automatically generate FI line items (for transactions originating in FI) or entire FI documents (for transactions originating outside FI). In posting FI documents, account determinations provide consistency, ease of entry, and accuracy.

End users don't always know what G/L accounts are relevant to a particular FI posting, and account determinations thereby lessen the potential for human error. They provide seamless integration within FI and between FI and other SAP modules. Transactions originating outside of FI require account determinations when the SAP transaction has a financial impact.

Before attempting to configure account assignments in SAP, you first need a solid chart of accounts (COA). Then, and only then, can you effectively blueprint account determinations, business process by business process, and transaction by transaction.

Configuration is first done and tested in a development instance of SAP. Afterwards, it is transported to a quality assurance (QA) instance for additional testing. Note that testing account assignments is the responsibility not only of the finance department but also of the team from which a financial posting originates, such as Materials Management (MM) or Sales and Distribution (SD).

To achieve high data quality, all account determinations should be fully tested before being transported into production. This is time consuming but beats the alternative. Fixing account assignments in production after the fact may require reversing or adjusting entries, additional configuration and testing, and significant error analysis.

Configuration of account determinations occurs in SAP's IMG using transaction code SPRO. SAP also provides transaction codes for most of the configuration for quick and easy access to the configuration tables. We will cover these transaction codes in detail.

#### **David A. Burns**

Chief Executive Officer  
1340 Environ Way  
Chapel Hill, NC 27517

e: david.burns@primepsm.com  
p: 866.348.0102  
m: 919.601.9225

## FI Transactions

One of the first account determinations necessary in an SAP system is the retained earnings account. Before any financial postings can be made, at least one retained earnings account must be specified using transaction code OB53. Retained earnings are classified in the B/S under shareholder's equity. At year-end, profit and loss accounts are closed and the net balance (net profit or loss) is carried over to the B/S vis-a-vis retained earnings.

### Example OB53

Chart of Accounts	CANA	Chart of accounts - North America
Transaction	BIL	Balance carried forward
Account assignment		
P&L statmt...	Account	
X	330000	

Unlike retained earnings, SAP fixed asset account determinations are complex and require more planning. To begin, a logical G/L nomenclature is needed to achieve the best results. In setting up fixed asset G/L accounts, it's important to provide a nomenclature that aligns with asset classes, thereby enabling ease of use in creating and maintaining assets.

SAP transaction code AO90 is used to assign fixed asset G/L account assignments. Relevant transaction types include fixed asset acquisitions, depreciation, gains/losses, revaluations, sales, and transfers. G/L account master data must be properly setup to allow proper account determinations. For example, SAP validates that an account assigned to depreciation expense is set up as a profit and loss account.

### Example Depreciation Expense Account (FS03)

Type/Description	Control Data	Create/bank/interest	k
Control in chart of accounts			
Account Group	P&L Statement Accounts		
<input checked="" type="radio"/> P&L statement acct			
Detailed control for P&L statement accounts			
Functional Area			
<input type="radio"/> Balance sheet account			
Description			
Short Text	Amortization Builds		
G/L Acct Long Text	Amortization - Buildings		

SAP also checks fixed asset balance sheet accounts, such as asset acquisitions, to ensure the master data is set up with the asset reconciliation account type.

### Example Asset Acquisition Account (FS03)

The screenshot shows the SAP FS03 'Control Data' tab. The 'Account control in company code' section includes the following fields and values:

Account currency	USD	United States Dollar
<input checked="" type="checkbox"/> Only balances in local crcy		
Tax category	-	Only input tax allowed
<input checked="" type="checkbox"/> Posting without tax allowed		
Recon. account for acct type	Assets	
Alternative account no.		

Individual consistency checks are routine in the fixed asset configuration. Moreover, SAP provides an overall consistency check that provides the status of all fixed asset account determinations. The transaction code used for this purpose is OAK4. All issues and inconsistencies listed in OAK4 should be resolved before moving fixed asset configuration into production.

Let's take a look at an example of account determinations in fixed assets. Asset classes in SAP are categories of fixed assets that have distinguishing features, such as useful life and depreciation method. Much of the SAP configuration for fixed assets centers on these classes. Let's assume that there is an asset class 160010 for IT assets, and it has the following account determinations:

- B/S Account Acquisitions: 160010
- B/S Account Accumulated Depreciation: 170010
- P&L Account Depreciation Expense: 440010

In SAP, asset acquisitions can be made using either F-90 or ABZON. In our example, an asset acquired using asset class 160010 will automatically post a debit to G/L account 160010 (i.e. IT assets) and credit accounts payable. After capitalization, the asset is depreciated using SAP transaction AFAB. When executed, depreciation will automatically generate an FI document with a debit to G/L account 440010 (i.e. depreciation expense) and credit to account 170010 (i.e. IT assets - accumulated depreciation).

In addition to retained earnings and fixed assets, FI has a substantial number of additional account assignments. The more commonly used ones include taxes, gains/losses, goods receipt/invoice receipt (GR/IR), discounts, exchange rate differences, interest, split ledger, payments, banking, and clearing accounts. Listed below are many of the transaction codes needed to make your account determinations.

### Common FI Account Determinations

GSP_KD	Split ledger zero balance account
AO90	Fixed assets
OAK4	Asset consistency check
OB40	Taxes
OB53	Retained earnings
OBB0	Discounts
OBO9	Exchange rate differences
OBV1	A/R Interest in arrears
OBV2	Interest
OBWW	Extended withholding taxes
OBXA	Net method
OBXB	Tax clearing
OBXD	Bad debt
OBXK	Vendor bank charges
OBXL	Clearing differences
OBXL	Over/under payments
OBXR	Customer down payments
OBXT	Alternate Vendor reconciliation accounts
OBXU	Cash discounts taken
OBXV	Lost cash discounts
OBXY	Alternate customer reconciliation accounts
OBXZ	FI Clearing differences
OBYP	GR/IR
OBYR	Down payments received
OBYS	Withholding tax
OBYT	A/R for HR
OBYU	A/P for HR
OBYY	Tax exchange rate differences

It's important to put account determinations into perspective. Many account determinations are required by SAP. Among these are taxes, payments, banking, and GR/IR. Other account determinations are helpful but not absolutely required from a configuration perspective. These include clearing accounts, rounding differences, and alternate A/P and A/R reconciliation accounts. The point is that to effectively blueprint your account assignments, you will benefit from bucketing them as follows:

1. Those required by SAP;
2. Those that are not required by SAP but are essential to your business process;
3. Those that are nice to have; and
4. Those that are irrelevant.

This will help you to sift through the plethora of possibilities and allow your SAP implementation to focus, first, on what's necessary to run the business. Additional account assignments can always be added or changed in the future.

### **Transaction Originating Outside FI**

Any SAP module that provides seamless integration with SAP FI requires account determinations. This includes MM, SD, Human Capital Management (HCM), Real-Estate, Travel Management, Investments, and more. Here, MM and SD will be covered in detail.

First, let's begin with MM. Purchase requisitions and purchase orders have numerous follow-on transactions which have a financial impact. Our first example is a receipt of goods. These transactions are processed through transaction code MIGO. The account determination for GR/IR (i.e. OBYP) enables MIGO to automatically create an FI document with a debit to inventory or expense and a credit to GR/IR. Without the GR/IR specification, a goods receipt entry cannot post because the system doesn't know how to record the financial impact.

Along the same lines, the GR/IR account determination enables an invoice, processed using transaction code MIRO, to automatically create an FI document that debits GR/IR and credits accounts payable. This does not apply to FI invoices posting using FB60. Again, as with goods receipts, the invoice entry cannot post without the GR/IR account assignment because the system doesn't know how to record the financial impact.

GR/IR and other MM account determinations are configured with transaction code OBYC. Within OBYC, MM account assignments are clustered via a Group Key. This key is predefined by SAP as a means of grouping business transactions. All the MM account assignments are assigned to group RMK.

### **Example OBYC**

Configuration Accounting Display : Automatic Posts - Procedures		
Groups		
Group	RMK	Materials Management postings (MM)
Procedures		
Description	Transaction	Account determ.
Rev. from agency bus.	A61	<input checked="" type="checkbox"/>
Sales fr. agency bus.	A62	<input checked="" type="checkbox"/>
Exp. from agency bus.	A63	<input checked="" type="checkbox"/>
Expense/revenue from consign. mat. consum.	AK0	<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"/>
Inventory posting	BSD	<input checked="" type="checkbox"/>
Change in stock account	BSV	<input checked="" type="checkbox"/>
Inventory posting	BSX	<input checked="" type="checkbox"/>

As shown in **Example OBYC** above, the Procedures area consists of numerous transaction keys and their descriptions. Here, you select by double-clicking on a transaction, and on the next screen, enter your account assignments.

In the example below we see the account assignments for stock transfer revenues and expenses. Notice that the account assignments are separated by valuation class. The valuation class is an MM object allowing materials to be classified into groups, thereby allowing different G/L account assignments.

### Example Account Assignment Stock Transfers

**Configuration Accounting Display : Automatic Posts - Accounts**

◀ ▶ Posting Key Groups Procedures Rules

Chart of Accounts  Armacell chart of accounts  
 Transaction  Expense/revenue from stock transfer

Account assignment

Valuation ...	Valuation class	Debit	Credit
0001	3001	400000	400000
0001	3002	400000	400000
0001	3003	400010	400010
0001	3004	400020	400020
0001	3005	400020	400020
0001	3006	400020	400020
0001	3007	400020	400020
0001	3008	400020	400020

Here, once again, we emphasize that *not all account assignments are needed to run your business*. For MM account determinations, the list below provides some of the common ones used for a manufacturing company.

### Common MM Account Determinations (Listed by OBYC Transaction Code)

Transaction	Description
AKO	Consignment
AUM	Stock Transfer
BSV	Change in stock account
BSX	Inventory posting
FR1	Freight
GBB	Offsetting inventory posting
KON	Consignment payables
PRD	Price differences
UMB	Gain/Loss from revaluation
UPF	Unplanned delivery costs
WRX	GR/IR

Some account determinations, such as those for SD, are not as simple as plugging in a G/L account number into a configuration table. In fact, there may be several “puzzle pieces” that need to fit together.

In SD, the first puzzle piece to consider is the condition types, which represent a pricing element, such as base price, discount, or tax. There are many settings within a condition type, as shown in the example below.

## Example Condition Type

The screenshot shows the 'Display View Conditions: Condition Types: Details' dialog box. The 'Condit. type' is 'ZCBS REBATE ACCRUAL' and the 'Access seq.' is 'ZHIR SalesOrg Hierarchy Pr'. The 'Control data 1' section includes: 'Cond. class' (Discount or surcharge), 'Plus/minus' (positive), 'Calculat.type' (Percentage), 'Cond.category' (Commercial), and 'Rounding rule' (Commercial). The 'Group condition' section has 'Group cond.' and 'RoundDiffComp' checkboxes, with 'GrpCond.routine' set to 0. The 'Changes which can be made' section includes checkboxes for 'Manual entries' (No limitations), 'Header condit.', 'Item condition', 'Delete', 'Amount/percent', 'Value', 'Qty relation', and 'Calculat.type'.

Condition types, in turn, are wrapped into pricing procedures. Each condition type within a pricing procedure is assigned an account key. This account key is the link to a G/L account, as we will see further down.

## Example Pricing Procedure

The screenshot shows the 'Display View Control data: Overview' dialog box. The 'Procedure' is 'RVCEU1 Standard'. The 'Reference Step Overview' table is as follows:

Step	Co...	CType	Description	Fro	To	Ma...	R...	Sta...	P	SuTot	Reqt	CaTy...	BasT...	AccKey	Ar...
11	0	PR00	Price	0	0		<input checked="" type="checkbox"/>				2	0	0	ERL	
13	0	PB00	Price (Gross)	0	0		<input checked="" type="checkbox"/>				2	0	0	ERL	
14	0	PR02	Graduated Price	0	0		<input type="checkbox"/>				2	0	0	ERL	

A pricing procedure is automatically assigned to an SD transaction based on configuration setting for customer, sales document type, and sales area. Within the control data portion of the pricing procedure, as shown above, an account key (e.g. ERL for Revenue) is assigned for each condition type. The specific G/L account assigned then depends upon access sequences. These are maintained using transaction code VKOA.

## Example Access Sequences

The screenshot shows the 'Assign G/L Accounts' dialog box. The table lists the following access sequences:

Table	Description
1	Cust.Grp/MaterialGrp/AcctKey
2	Cust.Grp/Account Key
3	Material Grp/Acct Key
4	General
5	Acct Key

The access sequence, while it looks complex, is nothing more than an SAP search sequence strategy that goes from the most specific criteria to the most general. Meaning, if the conditions are met in the most specific search, the system selects it. If not, it moves on to the next most specific search, and so on.

In the example below, the most general access sequence, 5 (Account Key) has revenue account 30000 assigned to account key ERL (i.e. Revenue).

### Example VKOA Account Assignment

**Change View "Acct Key": Overview**

New Entries

Acct Key						
App	CndTy.	Ch...	SOrg.	ActKy	G/L Account	Provision acc.
V	KOFI	CACH	1000	ERL	30000	
V	KOFI	CACH	1000	ERS	39090	
V	KOFI	CACH	1000	ERU	23350	23350
V	KOFI	CACH	1000	EVV	10000	
V	KOFI	CACH	1000	IEP		
V	KOFI	CACH	1000	MWS	22000	

In summary, G/L accounts for SD are assigned using transaction code VKOA. Within VKOA there are access sequences. For the relevant access sequences (those needed to support your business), G/L accounts are assigned to an account key. The account key is then linked back to a specific condition type and pricing procedure which are assigned to the SD document.

It is worth noting that sales orders themselves do not have a financial impact. The time of billing is when the financial impact occurs. SD creates an invoice (i.e. billing document) during a billing run, and the SD-FI interface creates a corresponding invoice in FI using document type RV. It is at this point (i.e. billing) that the account determinations are used.

### Toolbox

In this are some of the best tips and tricks that we have used over the years. We hope you find them useful.

#### **Transaction code FBKP: Selected parts of FI configuration.**

FBKP is one of the single most useful tools in FI. It provides quick access to critical parts of FI configuration. Most importantly, it provides a central link to account determinations. Not all FI account determinations are in FBKP, but a substantial portion of them are. FBKP is an excellent tool to ensure you have your account determinations universally covered.

## Example Transaction Code FBKP

**Maintain Accounting Configuration**

Choose Automatic postings Special G/L

Configuration of Financial Accounting

Selected Parts of the FI Configuration

Double-Click Here to Branch to the Complete IMG

Selection	
Automatic Postings	T001U, T030, T030B, T030D, T030K, T030R T030S, T030U, T030X, T030Y
Special G/L	T074, T074U, T074T
Posting Keys	TBSL, TBSLT
Doc. Types	T003, T003T
Clearing Procedure	T041A, T041T, T003A
Fiscal Year Variants	T009, T009B, T009T, T009Y
Field Status Grps	T004F, T004T

## Groups Inside FBKP Automatic Posting Groups

**Configuration Accounting Display : Automatic Posts - Groups**

Group
Goods/Invoices receipt clearing
Incoming invoices
Investments
Joint Venture Accounting
Joint Venture Cost Calculations
Materials Management postings (MM)
Offsetting account
Offsetting entries in special G/L trans
Other taxes
Outgoing invoices
Payment program
Payment requests
Postings from Travel Expenses Accounting
Postings from loans area
Postings from payroll (HR)

### Transaction code OBL1: Error analysis/automatic postings.

OBL1 provides error analysis in your account determination settings. It checks for consistency, posting keys, and posting rules. Simply enter your chart of accounts and company code and press enter. On the next screen, you are presented with groups to select from. As you see in the example below, group RMK is selected for MM.

## Example OBL1

**Error Analysis/Automatic Postings Documentation**

  

Chart of accounts

Company code

## Groups Inside OBL1

Grp	Description
<input type="checkbox"/> KDT	Tax exchange rate differences
<input type="checkbox"/> PCV	Profit Center Clearing
<input checked="" type="checkbox"/> RMK	Materials Management postings (MM)
<input type="checkbox"/> SAK	G/L account posting
<input type="checkbox"/> SKN	Cash discount and payment differences
<input type="checkbox"/> STA	Offsetting entries in special G/L trans
<input type="checkbox"/> STE	Other taxes
<input type="checkbox"/> SWE	Check/bill of exchange
<input type="checkbox"/> YRB	Company code clearings
<input type="checkbox"/> WEC	Bills of exchange
<input type="checkbox"/> WRV	Goods/invoices receipt clearing
<input type="checkbox"/> ZAF	Payment requests
<input type="checkbox"/> ZAH	Payment program
<input type="checkbox"/> ZAU	Postings from loans area

## Transaction Code S\_ALR\_87101048: Account Detective.

Analyze and output various account determinations using the account detective. This is a great way to troubleshoot posting problems.

## Example Account Detective

**Account Detective**

 

**Database Selections**

Company Code  

Only Accounts in the Co.Code

Controlling Area

Chart of Accounts

G/L Account  to

**Account Determination Analysis**

Output FI Account Assignments

Output MM/HR Account Assignmnt

Output Cost Element Categories

Output AA Account Assignments

Output SD/EK Account Assignmnt

**Output Control**

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Layout

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