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The SAP® Material Master – a Practical Guide

Second Edition

- ▶ Fundamental SAP Material Master concepts
- ▶ How settings impact other modules in SAP
- ▶ Cost-effective procurement and planning techniques
- ▶ Inventory and quality management best practices

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2 Material master basics

In this chapter, I will describe the general format of the SAP Material Master as it is seen by the end user. I will also set up a framework for my description of the material master by defining some terms that will be used throughout the text. This framework will help you begin navigating the material master.

By maintaining a material master, you will not only be describing an item, you will also be further classifying that item to suit your organization's needs.

You will set up the material master to perform various sales, planning, procurement, production, and shipping activities, as well as selecting the parameters to control those actions. As we go through this text, I will define the material master settings and their implications in detail. In order to do this, we need to discuss the basic theory and abilities of the material master, as well as define some common terms that will be used throughout the text.

2.1 Material master structure

Like most information stored within SAP's transactions, the material master is nothing more than a database that has been programmed with an aesthetic visual representation. This visually pleasing display consists of several *screens*, each containing information and parameter settings relevant to the screen's title. Furthermore, the information on each screen is sub-classified into more specific groupings, which I'll refer to as an *information set*. The example below (see Figure 2.1) is a picture of the MRP 1 screen, an essential component to material planning, procurement, and production functionality. This screen consists of some general header data: the material, the material description, technical information, the plant and the revision. It also consists of four information sets: GENERAL DATA, MRP PROCEDURE, LOT SIZE DATA, and MRP AREAS.

Purchase order text MRP 1 MRP 2 MRP 3 MRP 4 For...

Material: SEAL 'O' RING

Plant: Martin-Baker America Johnstown

RevLev:

General Data

Base Unit of Measure: each MRP group:

Purchasing Group: ABC Indicator:

Plant-sp.matl status: Valid from:

MRP procedure

MRP Type: MRP

Reorder Point: Planning time fence:

Planning cycle: MRP Controller:

Lot size data

Lot size: 60 day Lot (12 Working Weeks)

Minimum Lot Size: Maximum Lot Size:

Maximum stock level:

Assembly scrap (%): Takt time:

Rounding Profile: Rounding value:

Unit of Measure Grp:

MRP areas

MRP area exists

Figure 2.1: MRP 1 screen

Each element of any given information set is called a *field*. In the previous example (see Figure 2.1), the information set GENERAL DATA contains the fields BASE UNIT OF MEASURE, MRP GROUP, PURCHASING GROUP, ABC INDICATOR, PLANT SPECIFIC MATERIAL STATUS, and VALID FROM (regarding plant-specific material status).

Each field is also stored “behind the scenes” in a *table* within the SAP database. The table contains other fields with similar functions. SAP has also designed relationship structures into the program which allow certain tables to communicate with one another and drive functionality. As you progress in your understanding of the material master, you will want to understand those relationships in great detail. Not only will an understanding of those relationships help you to understand material master functionality, it will also help you to capitalize on customized reporting possibilities.

Each table and field is represented by a technical name in the database. In the example below (see Figure 2.2) a technical description of the field MRP TYPE is displayed. Here you can see the technical name of the field (DISMM) and the table (MARC) in which it is stored. We will discuss more about technical information and how to access it later in the chapter.

The screenshot shows a dialog box titled "Technical Information" with four sections: Screen Data, GUI Data, Field Data, and Field Description for Batch Input. Each section contains a list of technical attributes and their values.

Screen Data	
Program Name	SAPLMGD1
Screen Number	2482

GUI Data	
Program Name	SAPLMGMM
Status	DATE00

Field Data	
Table Name	MARC
Table category	Transparent table
Field Name	DISMM
Data Element	DISMM

Field Description for Batch Input	
Screen Field	MARC-DISMM
Program Name	SAPLMGMM
Screen Number	4000

At the bottom of the dialog box, there is a "Navigate" button with a checkmark icon and a close button with an 'X' icon.

Figure 2.2: Technical information—table and field name

Use table relationships for customized reporting



Not all of the information you may want is available to you in a standard SAP report. Once you've gained an understanding of tables, fields, and their relationships with one another in the material master, explore transaction SQVI. It is a report builder where you can create customized reports on most interrelated fields of the material master (and other transactions for that matter) by joining their respective tables for the purposes of reporting.

Advanced tip: Use SQ01, SQ02, and SQ03 to share joined table reports



Transaction SQVI is a quick and handy tool for the individual end user to join tables in order to generate simple reports. I recommend SQVI to the beginner because of its simplicity. However, once you become confident with joining tables for ad hoc reporting I recommend using transactions SQ01, SQ02, and SQ03. These transactions allow the user to define information sets (table or collection of joined tables) and allow for more refinements to the selection criteria and output. Furthermore, an end user can define authorized user groups for these information sets so that customized reports can be shared and reproduced by any authorized user. SQVI limits the use of the defined table join to only the end user who created it.

2.2 Creating and accessing the SAP Material Master

There are three main SAP transaction codes that pertain to the SAP Material Master:

- ▶ **MM01 (CREATE MATERIAL MASTER)**—This is the transaction code used to create a new material master. You will have two choices when you create a material master. You can either create a new material without reference, or you can choose to copy an exist-

ing material master and then change the relevant settings to account for the new material.

- ▶ MM02 (CHANGE MATERIAL MASTER)—This transaction code allows you to make changes to existing material masters. However, not all elements of a material master can be amended in this transaction. For instance, the industry sector and material type are fixed once a material master is created. The material type can be changed, but through a separate transaction and certain restrictions apply.
- ▶ MM03 (DISPLAY MATERIAL MASTER)—This transaction code simply allows you to display a given material master. By design, no changes may take place in this transaction.

2.2.1 Creating the material master

To create a material master, you will enter transaction code MM01. Once you've done that, you will be presented with the following screen containing five fields (see Figure 2.3).

Figure 2.3: Create material—opening screen

MATERIAL—In this field you will enter the alphanumeric material number you wish to create. There are two schools of thought in the numbering scheme, you can either leave this field blank and SAP will automatically assign the next available number, or you can enter a number of your choosing. Either way, the numbering scheme and range of numbers

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