SAP Logistics - Procurement - Inventory - Invoicing

SAP Materials Management
Step by Step Guide
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**Introduction**

SAP stands for Systems, Applications and Products in Data Processing. Five German Engineers founded it in 1972. SAP is an ERP software which large organizations use to manage their business. SAP has several modules, each of which represents a business-process. Modules are usually abbreviated for the business process they represent. For instance, HCM is Human Capital Management, FI for Financial Accounting, MM for Materials Management and SD is Sales & Distribution and so on. All together there are some nineteen core modules.

These modules are highly integrated in real-time, which means, that if information is shared between modules then the data is entered only once. This reduces the chances of error arising from repetitive entry and also reduces the man-hours. Managers and decision makers always have information at their fingertips and this helps them in effective decision making.

SAP has been around for nearly four decades. Nine out of ten Fortune-500 companies have already implemented SAP (not counting the thousands of to-be Fortune-500 companies that have SAP). There are well over 10 million SAP users worldwide and jobs keep popping up all around the world.

SAP is the leading ERP (Enterprise Resource Planning) software. Because of it’s liberal open-architecture, there are millions of programmers working around the world to provide interaction between thousands of major software and SAP.

SAP is usually implemented in phases. The first phase is when organizational structure and accounting components are configured, tested and then taken live. Gradually more modules are turned on.

**MM Course**

The purpose of this book is to learn step-by-step general configuration methods for the MM module which has always been the backbone of Logistics. The course is built on menu path navigation of the Implementation Guide (IMG) and the application area.

**LearnSAP**

LearnSAP strives to help students develop SAP skills and knowledge needed to compete in the employment market and adapt to future changes. The training course combines classroom theory of SAP technology with hands-on practice.

LearnSAP strives to evolve with the marketplace, delivering skills-based education that is sensitive to market needs and convenient to students. Our goal is to help people develop into employees who are equipped to meet the challenges of a marketplace where change is the one constant.
SAP Overview and Navigation:

Login On:

- The initial password is provided by system administrator
- Password is case sensitive
- System prompts for new password in a dialog box
- Click on “Enter” after reconfirming the new password.

On changing the password, the copyright information appears when you login for the first time, click on enter key here and you will be logged in the SAP System.
**Menu bar:**

The Menu bar is the top line of any dialog window in the SAP system.

**Standard toolbar:**

Standard functions that are available in displayed in this toolbar. The applications like save, top of page, end of page, page up, page down, print, etc.

**Title bar:**

Displays the name of the application/business process you are currently in.

**Application toolbar:**

Application specific menu options are available on this toolbar.

**Command Field:**

To start a business application without having to navigate through the menu transaction codes are assigned to the business processes. Transaction codes are entered in the command field to directly start the application.
Standard Toolbar Icons

- **Enter**: Confirms entered data. Does not save work.
- **Back**: Returns to previous screen without saving data.
- **Command field**: Used to enter command, transaction code. To display it, click the arrow.
- **Save**: Saves the work.
- **Exit**: Returns to initial screen without saving data.
- **Scroll buttons**: First page, previous page, next page and last page.
- **F1 Help**: Provides help on the field where the cursor is positioned.
- **Print**: Print current screen.
- **Cancel**: Exit current task without saving data.
- **Layout menu**: Customizes the display options. *Print out the screen (Hard Copy)*.
- **Find and Find next**: Search for data in current screen; extend research.
- **Create shortcut**: Create a shortcut to any report, transaction.
- **Create session**: Create a new session.
- **Create New Session Icon**

Standard Exit Keys

- **Exit Keys**
- **Back**
- **Cancel**
- **Exit Transaction Or Log Off**

Create New Session Icon
Login Off

It is a good practice to log off from the SAP system when you finish your work. There are several ways of logging off from the system:

- From Menu, select system -> log off
- Close the open sessions and the last session will log you off
- Enter /nex in the command field

Before the system logs you out, a dialog box is displayed to confirm you want to log off from the system, except for the option /nex in the command field.
Overview of Materials Management Module:

Materials Management deals with managing the materials (products and or services) resources of an organization with the aim of increasing productivity, reducing costs and increase optimization and at the same time be flexible to accommodate changes.

A business process in SAP is termed as “Module”, SAP Materials Management (MM) is a part of Logistics area and helps to manage the procurement activity of an organization from procurement process, inventory management, invoice verification and material planning.

Materials Management is the backbone of the Logistics area which includes modules like Sales and Distribution, Production Planning, Plant Maintenance, Project Systems, Warehouse Management which are highly dependent on Materials Management module.

Materials management is highly integrated with other modules such as FI (Financial Accounting), SD (Sales & Distribution), PP (Production Planning), QM (Quality Management), PM (Plant Maintenance).

Procurement Process:
Is a process of acquiring goods and or services in the right amount, at the right price at the right time. Procurement can refer not only to buying of goods and or service, it also can include outsourcing.

Procurement process generally starts when there is a Demand or Request for a Material or services.
The request or demand leads to requesting quotes from Vendor/Suppliers for the material or services.
   Vendor Selection is the next step after receiving the quotes from the vendors.
   Negotiating the terms and conditions.
   Creation of Purchase Orders
   Receipt of Goods against Purchase Orders
   Inventory Updating
   Invoice verification
   Payment to the vendor/supplier
ORGANIZATION STRUCTURE

The organizational structures form a framework of a company in which business is conducted. Organizational Structure is also referred to as Enterprise Structure.

Enterprise Structure is made up of Organizational Units and have to be defined and each of the unit has a relationship to one another and this relationship has to be created by way of assignment.

The creation and assignment of organizational units is done in Customizing of Enterprise structure.

Configuration v/s Customization:

**Configuration:**
Configuration uses the inherent flexibility of the enterprise software to add fields, change field names, modify drop-down lists, or add buttons. Configurations are made using powerful built-in tool sets.

**Customization:**
Customization involves code changes to create functionality that is not available through configuration. Customization can be costly and can complicate future upgrades to the software because the code changes may not easily migrate to the new version. Wherever possible avoid customization by using configuration to meet the goals.

SAP Implementation Guide:
Configuration of SAP software to adjust to the workings of your organization is done through the Implementation Guide commonly known as IMG.
IMG is where the Enterprise Structure is defined and maintained along with the other settings required for the functioning of the SAP software for the client implementing SAP.

Reaching SAP IMG:

**Menu Path:**
SAP Easy Access → Tools → Customizing → IMG → Execute Project

TCode = SPRO

Enter transaction code “SPRO” in the command field and click on enter.
On the following screen, click on “SAP Reference IMG”
This is the screen where all the configuration nodes related to MM and other modules are present.

**Menu path for MM area –**

- SAP Customizing Implementation Guide (IMG) > Enterprise Structure > Definition
- SAP Customizing Implementation Guide (IMG) > Enterprise Structure > Assignment
- SAP Customizing Implementation Guide (IMG) > Logistics – General > Material Master
- SAP Customizing Implementation Guide (IMG) > Materials Management
  - General Settings for Materials Management
  - Consumption-Based Planning
  - Purchasing
  - Inventory Management and Physical Inventory
  - Valuation and Account Assignment
  - Logistics Invoice Verification
Enterprise Structure in Materials Management:

The Organizational Structure in MM is made up of following Organizational Levels:

- Client
- Company Code
- Plant
- Storage Location
- Purchasing Organization
- Purchasing Group

**Client:**
Represents a grouping or combination of legal, organizational, business and/or administrative units with a common purpose.

**Company Code:**
Company Code represents an independent accounting unit within a client. Each company code has its own balance sheet and its own profit and loss statement.

**Plant:**
Operational unit within a company code.

**Storage Location:**
This level contains the data specific to a storage location. Stock levels are an example of the data maintained for each storage location.

**Purchasing Organization:**
An organizational unit responsible for procuring materials or services for one or more plants and for negotiating general conditions of purchase with vendors. The purchasing organization assumes legal responsibility for all external purchase transactions.

**Purchasing Group:**
The purchasing organization is further subdivided into purchasing groups (buyer groups), which are responsible for day-to-day buying activities. A purchasing group can also act for several purchasing organizations.
Defining Organizational Structure:

Create Plant:

**Menu Path:**
IMG → Enterprise Structure → Definition → Logistics - General → Define, copy, delete, check plant

Click on “Execute”

Choose or Double Click on “Define Plant”
Click on “New Entries” to create / define plant.

<table>
<thead>
<tr>
<th>Plant</th>
<th>Name 1</th>
<th>Name 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3001</td>
<td>HK 0001</td>
<td>Waldorf</td>
</tr>
<tr>
<td>0005</td>
<td>Hamburg</td>
<td></td>
</tr>
<tr>
<td>0006</td>
<td>New York</td>
<td>New York</td>
</tr>
<tr>
<td>0007</td>
<td>Werk Hamburg</td>
<td></td>
</tr>
<tr>
<td>0008</td>
<td>New York</td>
<td>New York</td>
</tr>
<tr>
<td>0009</td>
<td>Werk Eir Customizing-Kurse SCM</td>
<td>Vorlage</td>
</tr>
<tr>
<td>1008</td>
<td>Werk Hamburg</td>
<td></td>
</tr>
<tr>
<td>1106</td>
<td>Berlin</td>
<td>Berlin</td>
</tr>
<tr>
<td>1208</td>
<td>Dresden</td>
<td></td>
</tr>
<tr>
<td>1288</td>
<td>New Plant</td>
<td>New Plant</td>
</tr>
<tr>
<td>1306</td>
<td>Frankfurt</td>
<td>Frankfurt</td>
</tr>
<tr>
<td>1406</td>
<td>Stuttgart</td>
<td>Stuttgart</td>
</tr>
<tr>
<td>2000</td>
<td>Heathrow/Hayes</td>
<td>Heathrow/Hayes</td>
</tr>
<tr>
<td>2010</td>
<td>DC London</td>
<td>DC London</td>
</tr>
<tr>
<td>2106</td>
<td>Porto</td>
<td>Porto</td>
</tr>
<tr>
<td>2206</td>
<td>Paris</td>
<td>Paris</td>
</tr>
<tr>
<td>2216</td>
<td>Lyon</td>
<td>Lyon</td>
</tr>
</tbody>
</table>

Entry 1 of 154
Enter the following information:

- **Plant** = VV01  
- **Name1** = Houston NE Plant  
- **Name2** = Description for the Plant  
- **Factory Calendar** = “US”  

Click on “Address” Icon
In the Address details enter:

Title
Name
Search term ½
Street House Number
Postal Code
City
Country
Region

The rest of the information is not mandatory.

Click on Enter and then click on Save. You will be asked to reconfirm the address. Click on Enter again to confirm the address. A Customizing Request will be prompted.
Click on “Create Request” Icon

Enter a Short Description and click on “SAVE” Icon.

Note down the Request Number and henceforth use this request number to save all your configurations.

Click on Enter

Data save message is displayed on the status bar
Choose or Double Click on “Copy, delete, check Plant”

Click on “Copy Org. Object”
System will give you a message on status bar (bottom of screen) that tables are being read.

On the next screen pop-up

Enter the following information:
- From Plant = 3000
- To Plant = VV01 (the plant number that you are creating)

Click on Enter.

Click on “Yes” on the next message

Hit enter on the next message
System will give you a message that XX % of tables copied.

Customizing request will be prompted, select your own and click on Enter.

Accept all messages (if any) by clicking on enter.
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You will get a message “Plant 3000” completed to VV01 “Your plant name”

Click on “Enter”

Check both the tabs –
- First tab “Selected objects” should show plant = 3000 and
- Second tab “Completed activities” should have “Plant 3000 copied to XXXX”
  Where “XXXX” represents your plant.
- Click on green back arrow.
Create Storage Location:

Menu Path:
IMG → Enterprise Structure → Definition → Materials Management → Maintain storage location

Click on “Execute”

Enter your plant name and click on “Enter”.
You may see that there are Storage Locations already associated with the plant that you have created.

The reason for these storage locations being associated with the plant created, is due to the step in definition of the plant, where we copied the associated tables for our plant from a standard SAP plant (3000). All the Storage Locations assigned to plant 3000 get copied over.

Select all the storage locations that you do not need and delete them for your own plant (VV01).
You can change the description of Storage Locations that you want to retain. You can also create new storage locations.

Click on “New Entries” Icon

Enter 4 character name for the storage location and description.

Click on “SAVE” Icon

A customizing request will be prompted, select your own request and click on “Enter”. The data will be saved.

Click on green back arrow twice to go back to the main IMG screen.