



SAP EWM

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S I M P L Y E A S Y L E A R N I N G

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About the Tutorial

SAP EWM is part of SAP Supply Chain Management like Warehouse Management System, but it provides more robust and advanced features to manage key activities in a warehouse.

SAP EWM is used to efficiently manage inventory in a Warehouse and for supporting processing of goods movement. It allows any company to control their Warehouse's inbound and outbound processes and movement of goods in the Warehouse.

This is a fundamental tutorial that covers the basics of SAP EWM and how to deal with its various components and sub-components.

Audience

In SAP EWM all goods movement are controlled by the warehouse management system that provides you the tools to monitor warehouse activities. This tutorial has been prepared for all those professionals who wish to learn the fundamentals of SAP EWM and to execute it in practice.

Prerequisites

It is a straightforward and simple tutorial which the readers can easily understand. The conceptions are explained here with a basic knowledge of how a company or an organization deals with its Warehouse Management System. However, it will help if you have some prior exposure to vendor management inventory, resource optimization, value added services and other related activities.

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Table of Contents

About the Tutorial.....	i
Audience	i
Prerequisites	i
Copyright and Disclaimer	i
Table of Contents	ii
1. SAP EWM – OVERVIEW	1
SAP EWM is different from SAP Warehouse Management.....	1
SAP EWM: Key Features	2
Deployed Options in SAP EWM	2
Communication Method	3
2. SAP EWM – ORGANIZATION UNITS	5
Types of Organization Units	5
How to Create Storage Bins and Block them for Put Away?	6
How to change the Storage Bin?	9
3. SAP EWM – MASTER DATA.....	11
Create and Update the WPM in ERP and SCM	12
Create WPM for Material Master Record Transfer via CIF?	16
4. SAP EWM – STRUCTURE ELEMENTS	20
Types of Structure Elements.....	20
Storage Types.....	21
5. SAP EWM – WORK CENTER	23
Creating a Work Center	23
6. SAP EWM – WAREHOUSE PROCESS TYPES	26

7.	SAP EWM – SELLING AND RECEIVING GOODS	28
8.	SAP EWM – MAINTAINING SERIAL NUMBERS.....	30
	Types of Serial Number Profiles	30
9.	SAP EWM – VALUE ADDED SERVICES	32
	Value Added Services Order	32
	How to Manage Packaging Specifications?	33
	How to Confirm a VAS order and Processing of a Handling Unit?	34
10.	SAP EWM – DIRECT GOODS ISSUE PROCESS.....	36
	How is a Goods Issue Carried out?	36
	Parameters to Perform a Storage Type Search Sequence	37
	Stock Removal Strategies	38
	Denial Scenario	39
	Waves in Warehouse for Outbound Delivery	39
11.	SAP EWM – STORAGE CONTROL	41
	Types of Storage Control	41
12.	SAP EWM – DECONSOLIDATION.....	44
13.	SAP EWM – PICK, PACK AND PASS OF GOODS	45
14.	SAP EWM – REPLENISHMENT.....	46
	Types of Replenishment	46
	How to Perform a Planned Replenishment?.....	47
	How to Find out the Assigned Fixed Bin?.....	50
	How to Perform Replenishment?	52
15.	SAP EWM – PHYSICAL INVENTORY	55
	Benefits of Physical Inventory	55

Ad-hoc Inventory	55
How to Create an Ad-Hoc Physical Inventory Document?	57
16. SAP EWM – SLOTTING	60
Different Parameters of Slotting	60
17. SAP EWM – LABOR MANAGEMENT	62
How to Create a Processor Business Partner?	64
18. SAP EWM – PRODUCTION SUPPLY.....	67
How to Setup a Master Data for Production Supply Process?.....	67
19. SAP EWM – EXPECTED GOOD RECEIPTS	71
Advantages of Using a Good Receipt	71
Create a Document for Expected Goods Receipt in EWM (Pull)?	71
How to Check the Expected Goods Receipt Document?	74
20. SAP EWM – CROSS DOCKING.....	76
Performing Opportunistic Cross Docking.....	76
21. SAP EWM – RF FRAMEWORK	81
22. SAP EWM – WAREHOUSE MONITORING	82
Warehouse Monitor Components	82
How to Display Stock Balance?.....	84
23. SAP EWM – INBOUND AND OUTBOUND DELIVERY	86
How to Open a Purchase Order for Inbound Query?	86
How to Create an Inbound Delivery?.....	89

1. SAP EWM – Overview

SAP Extended Warehouse Management (EWM) is used to efficiently manage inventory in the Warehouse and for supporting processing of goods movement. It allows the company to control their Warehouse inbound and outbound processes and movement of goods in the Warehouse.

The main process in a Warehouse is incoming and outgoing materials, goods receipt and goods issue, fulfil customer orders, and distribution of goods. When a company doesn't store any goods, then there is no need of Warehouse management to manage goods.

Inbound process involves storage of goods in warehouse and their location and Outbound process involves picking up the goods. Whenever a material is stored in a warehouse, it is stored in the storage bin and you can find its current location.

With the help of SAP EWM all the goods movement are controlled by a warehouse management system and provides you the tools to monitor warehouse activities. You can also manage additional functions in the Warehouse like creating a serial number, batch number, vendor management inventory, resource optimization and value added services. SAP Extended Warehouse Management allows you to not only monitor the quantity of goods in Warehouse but to manage other critical functions and delivery of goods efficiently.

SAP Warehouse Management is opposite to Inventory management. Inventory management tells the count of goods in the storage location and its physical location is unknown. Warehouse management deals with goods movement and monitoring the physical location of the goods recorded with specific documents.

SAP EWM is different from SAP Warehouse Management

SAP EWM is a part of SAP Supply Chain Management like Warehouse management system but provides more robust and advanced features to manage key activities in the Warehouse.

SAP Extended Warehouse Management is similar to Warehouse management but it provides more features like picking, put away, RF framework, Warehouse structure and more flexible options to manage the warehouse functions.

You can create new elements like an activity area, resources, labor management and work centers in SAP EWM which were not available in WM.

SAP EWM provides more a robust solution to manage warehouse functions in an organization. It is also a part of SAP Supply Chain Management and also supports all the processes within logistics and supply chain.

SAP EWM – Key Features

The following are the key features in SAP EWM:

- Using SAP EWM, you can control the warehouse activities like picking, posting and managing storage bin and good receipts.
- You can set alert for changed data before goods receipt from EWM to the ERP system, reversal or correction of the goods receipt from EWM to the ERP system and an inbound delivery split from EWM to the ERP system.
- You can perform deconsolidation of handling units which contain different products before putting them away in different storage sections.
- You can determine storage concepts using slotting for products and optimize arrangement of goods warehouse automatically.
- It allows you to perform executable tasks like work packages, consisting of warehouse tasks warehouse employees should perform as part of warehouse management activities.
- It allows you to manage and track vehicles as well as other transportation units from the yard check-in to yard check-out, including movements and other tasks within the yard.
- SAP EWM also includes storage and handling of hazardous substances and their transportation in accordance with the regulations from SAP Environmental Health & Safety EHS.
- In SAP EWM, you can also plan labor times and resources more effectively and hence you can make your Warehouse efficient by managing key resource management tasks effectively.
- In SAP EWM, you can use Warehouse cockpit that allows you to display warehouse key figures graphically and to evaluate or monitor activities using defined chart types.
- You can use cross-docking that allows you to perform transportation of handling units across different distribution centers or warehouses till they reach final location in the Warehouse.

Deployed Options in SAP EWM

SAP EWM can be considered as deployed in an ERP server or you can also consider it as an application in the Supply Chain Management landscape.

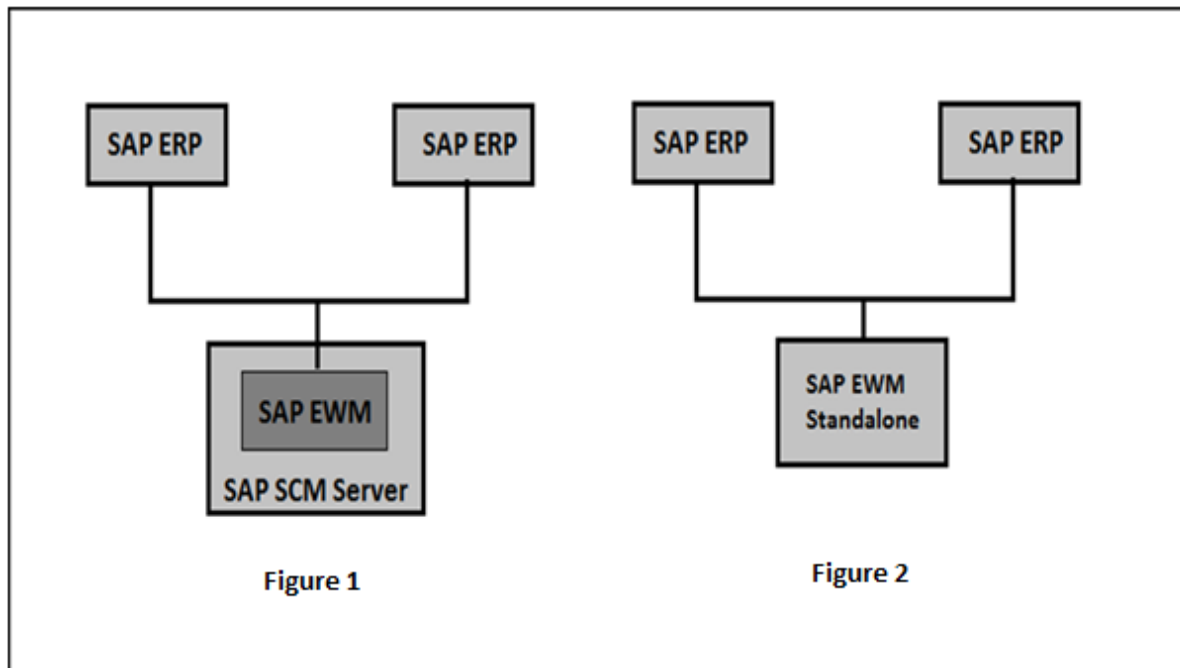
SAP Extended Warehouse Management is integrated with ERP to access transaction and master data and use of features like slotting, availability check also requires its integration with CRM.

It is considered as a separate application and shares the same server with the SCM applications. You can also run SAP EWM in its own SCM environment which is suitable to get improved performance.

EWM Deployment Options

The following image shows the deployment options for SAP EWM –

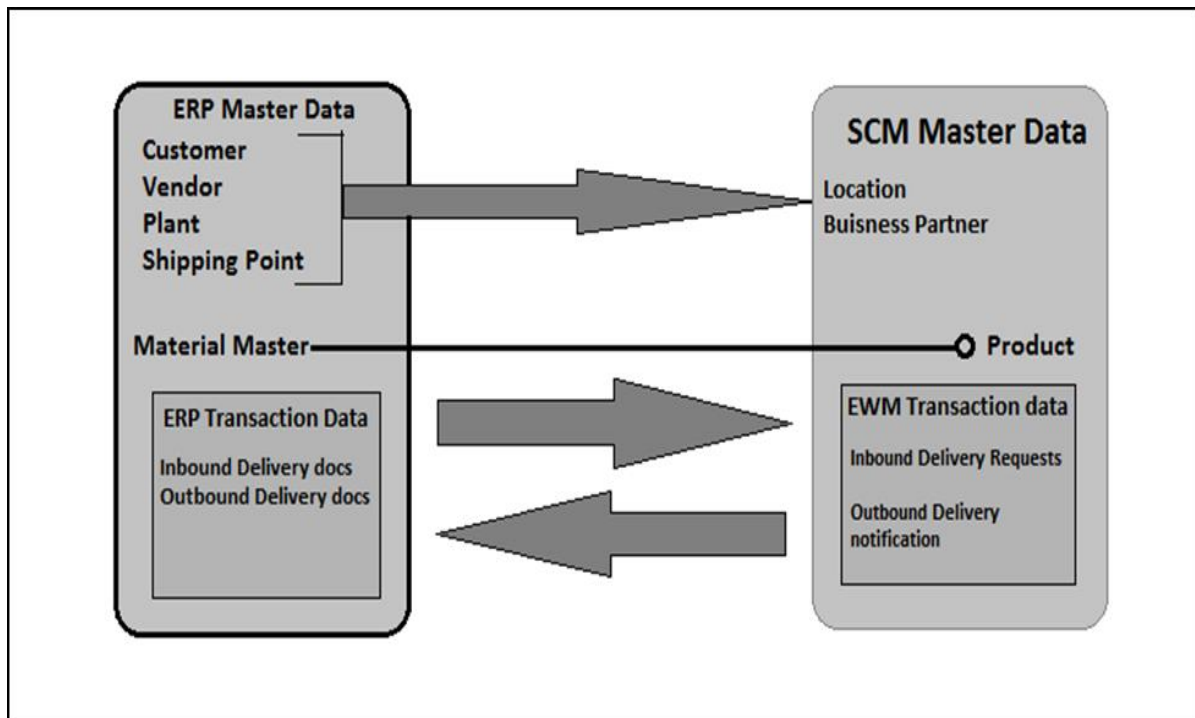
- Figure 1 shows SAP EWM on SCM Server.
- Figure 2 shows SAP EWM as Standalone



Communication Method

SAP ERP and EWM are closely integrated with each other for transfer of transaction and master data. There are two different ways of communication.

Core Interface (CIF): Core interface is one of the common method for communication between SAP SCM system and SAP Advanced Planning and Optimization APO. Master data maintained in ERP system like customer, material and vendor which are available in ERP system are transferred to EWM system use Core Interface CIF communication.



For transaction data (inbound/outbound delivery docs), a separate integration model is used for communication. This model uses iDocs or queued remote function call RFC.

How to check various menu structure of EWM system?

Login to the SCM system and navigate to the Extended Warehouse management node in the SAP menu. You can use various transactions to manage basic functions in Warehouse management:

Warehouse Monitor	/SCWM/MON
Maintain Inbound Delivery	/SCWM/PRDI
Maintain Outbound Delivery	/SCWM/PRDO
RF Environment	/SCWM/RFUI
Creating Storage Bin	/SCWM/LS01
Confirm Warehouse Task	/SCWM/TO_CONF
Warehouse product Maintenance	/SCWM/MAT1

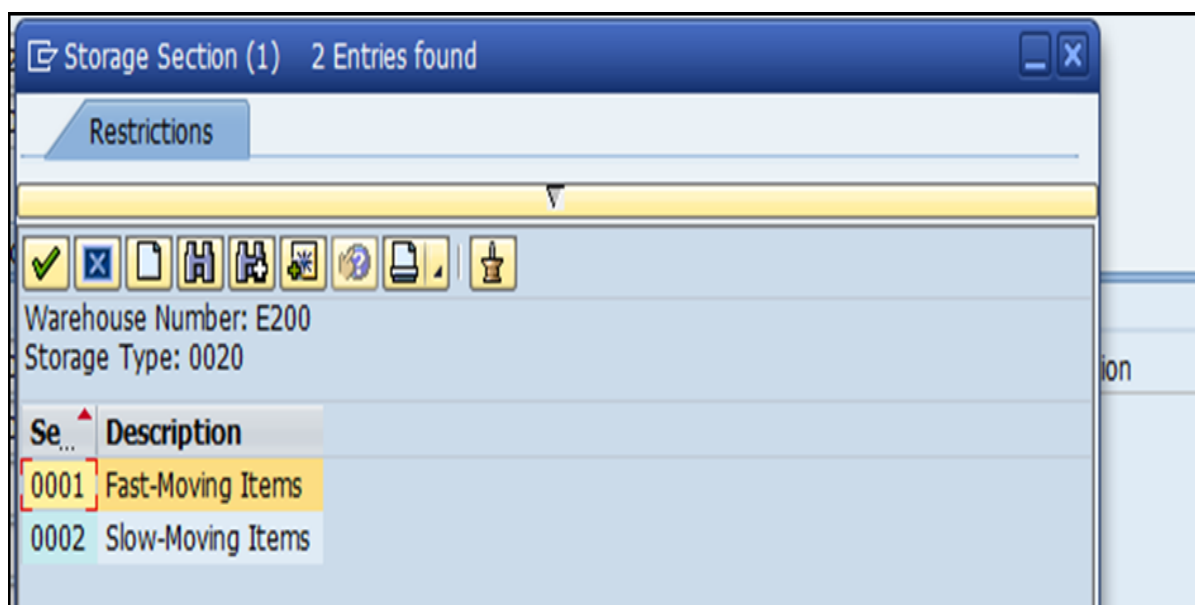
2. SAP EWM – Organization Units

In SAP ERP, a warehouse number is used to represent the physical warehouse where all the material is stored. A Warehouse number is a 3 or 4 character field in Warehouse management or EWM respectively. Warehouse numbers are created in the ERP system and to activate it, you use a combination of plant and storage location assigned to this plant with the respective warehouse number.

Types of Organization Units

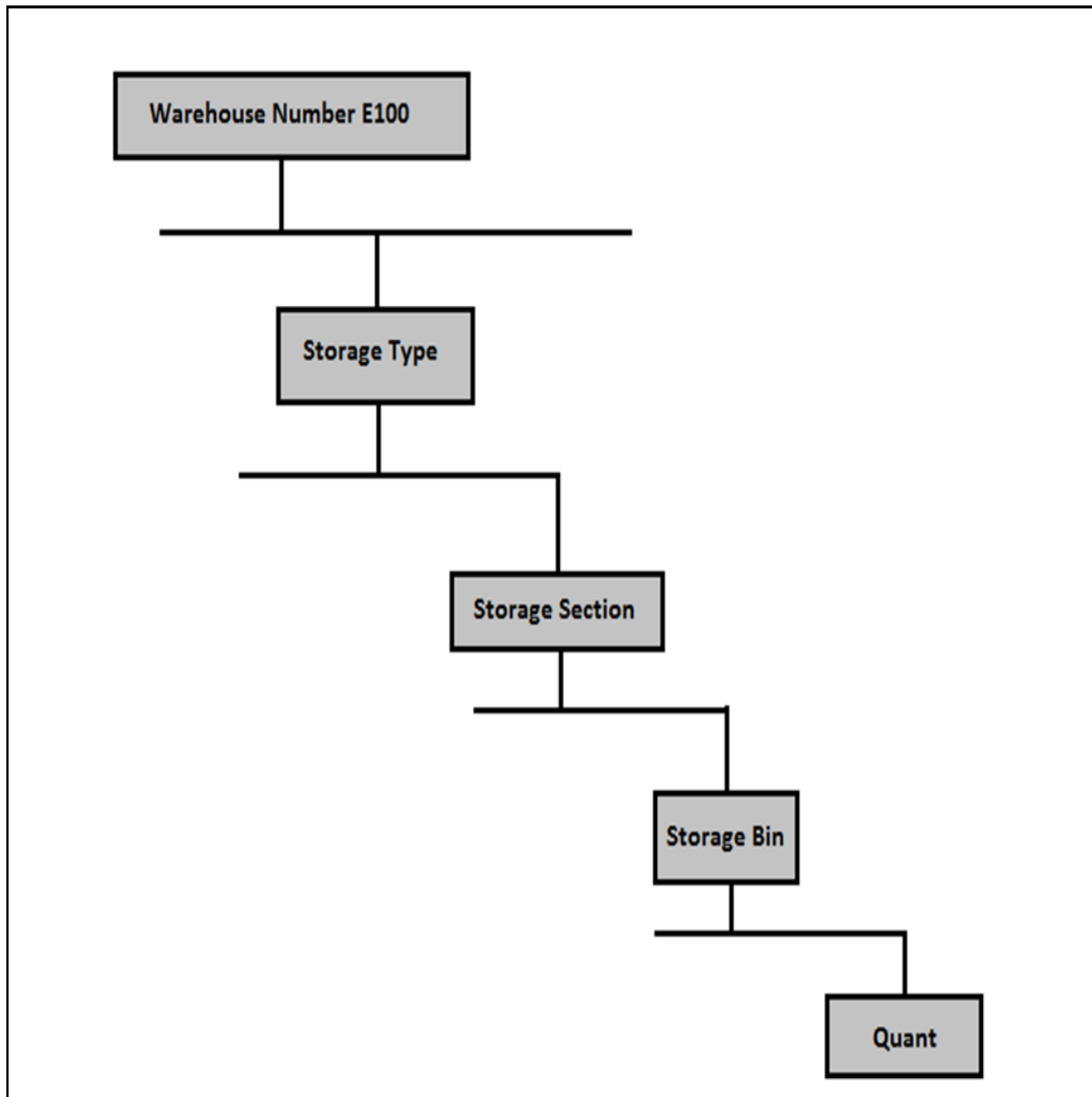
There are different organization units in a Warehouse system at different levels:

- **Warehouse Number:** Each warehouse consists of a warehouse number which is at the highest level in a warehouse management system. Each warehouse number consists of a sub structure that maps the warehouse relationship.
- **Storage Type:** There are different types of storage where products are physically stored in a warehouse such as open storage, goods issue and goods receipt, racks.
- **Storage Section:** This is a part of storage type and represents a group of bins with same characteristics. Commonly used storage sections are fast moving or slow moving items, etc.



- **Storage Bin:** The Storage bins represent the physical location of storage space where the products are stored in Warehouse. They are at the lowest level of the organization structure and when you store an item in a Warehouse you need to mention its exact location.

- **Activity Areas:** Storage bins are further categorized in this activity area. It includes activities like picking, put away or a physical inventory. As per the activity, you can assign the same storage bin to multiple activity areas.
- **Quant:** The quantity of goods in the storage bin is represented by Quant. The quant is used for managing inventory in storage bin.



How to Create Storage Bins and Block them for Put Away?

To create a Storage bin, you can use **T-Code: /SCWM/LS01** or

Navigate to the **Extended Warehouse Management -> Master data -> Storage Bin -> Create Storage Bin.**

The screenshot displays the SAP Easy Access interface. At the top, there is a toolbar with icons for 'Other menu', 'Create role', and 'Assign users'. Below the toolbar, a tree view shows the menu structure. The 'SAP Menu' is expanded, and 'SCM Extended Warehouse Management' is selected. Underneath, 'Extended Warehouse Management' is highlighted with a green arrow. The 'Master Data' folder is also highlighted with a green arrow. The 'Storage Bin' folder is expanded, and the menu item '/SCWM/LS01 - Create Storage Bin' is highlighted with a yellow box and a green arrow. Other menu items under 'Storage Bin' include '/SCWM/LS02 - Change Storage Bin' and '/SCWM/LS11 - Mass Change to Storage Bins'.

SAP Easy Access

Other menu | Create role | Assign users

- Favorites
- ▼ SAP Menu
 - ▶ Office
 - ▶ Cross-Application Components
 - ▶ SAP Transportation Management
 - ▼ SCM Extended Warehouse Management
 - ▶ Extended Warehouse Management
 - ▶ Monitoring
 - ▶ Delivery Processing
 - ▶ Work Scheduling
 - ▶ Execution
 - ▶ Shipping and Receiving
 - ▶ Physical Inventory
 - ▶ Labor Management
 - ▼ Master Data
 - /SCMB/SCUMAIN - Maintain Supply Chain Unit
 - /SCMB/SCUHIERMAIN - Supply Chain Unit: Hierarchy Maintenance
 - BP - Maintain Business Partner
 - /SCWM/PRDVC - Maintain Presentation Devices
 - /SCWM/DSGR - Maintain Consolidation Group
 - /SCWM/73000001 - Assign Storage Bins for VAS Consumption Posting
 - /SCWM/WHCOST - Maintain Warehouse Cost and FTE Data
 - ▶ Classification System
 - ▶ Resource Management
 - ▶ Slotting
 - ▼ Storage Bin
 - ▶ /SCWM/LS01 - Create Storage Bin
 - /SCWM/LS02 - Change Storage Bin
 - /SCWM/LS11 - Mass Change to Storage Bins

Enter your Warehouse number and Storage bin as per the requirement -> Press Enter as shown in the following screenshot.

Create Storage Bin

Warehouse No.

Storage Bin

Stor. Bin Stock Invent. Bin Sectioning Statistic Activity Areas Whse Tasks PSA

Storage Type Verification

Storage Section

Bin Access Type

Fire-Cont.Sect.

Stor. Bin Type

Stor.Group

REC St. Group

Fixed Bin Type

No. of HUs

Maximum Weight % Weight Used Weight Usage

Max. Volume % Loading Volume Volume Usage

Total Capacity

Aisle

X Coordinate

Stack

Y Coordinate

Level

Z Coordinate

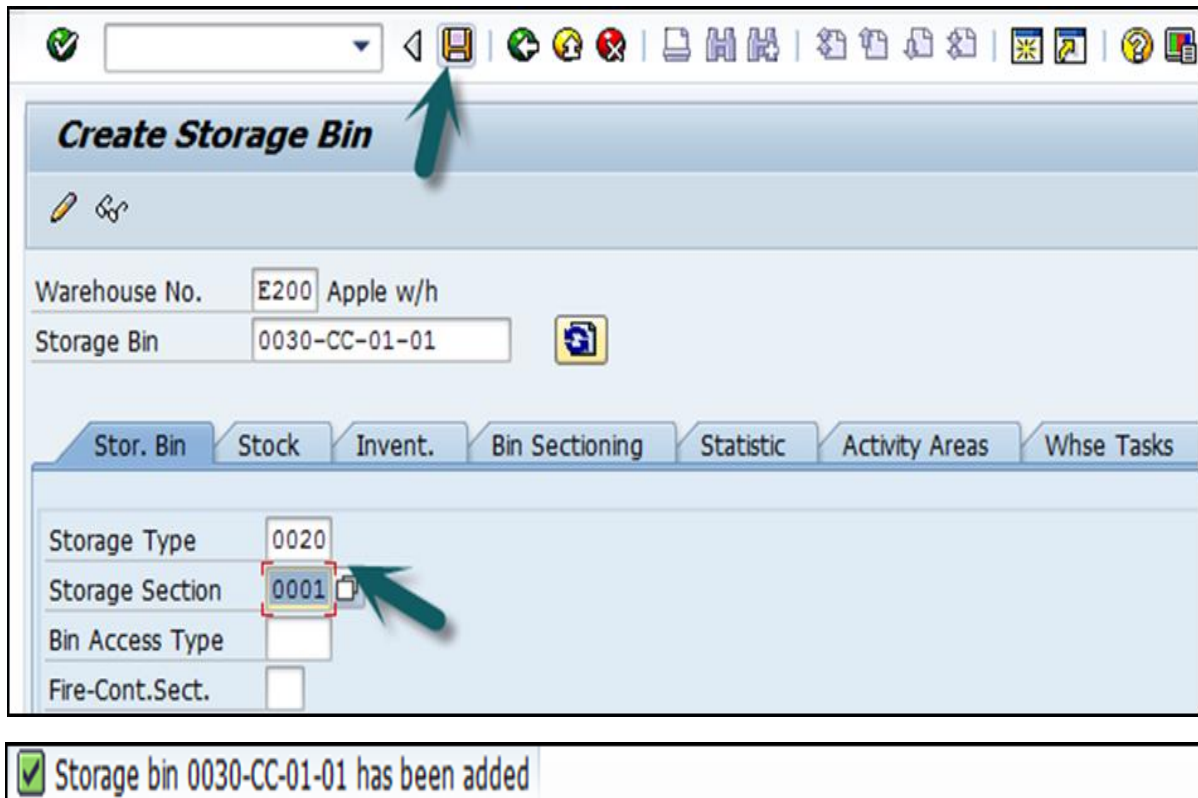
Bin Sectn

Bin Depth

Bin Angle

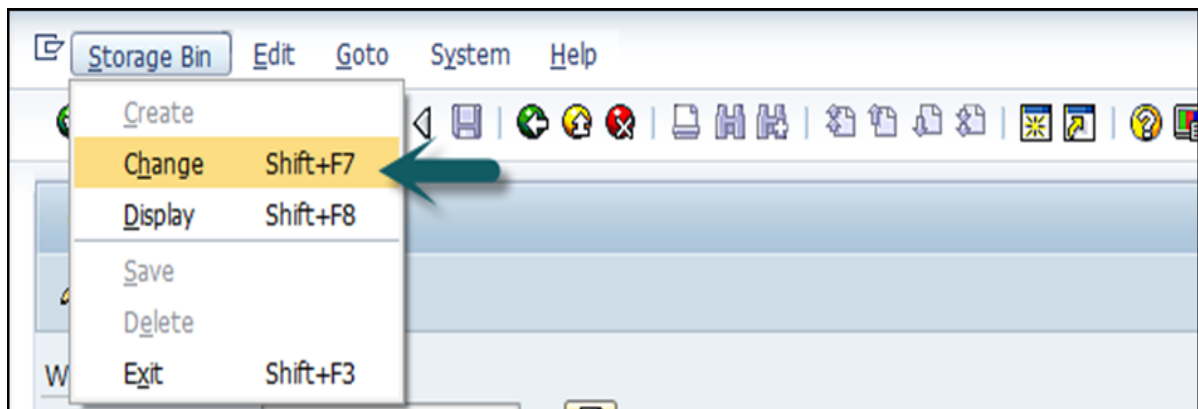
Status

Enter the Storage type and Storage section as per the requirement and then click on the Save icon as shown in the following screenshot.



How to Change the Storage Bin?

To change the storage bin, click on **Storage bin -> Change**



Now to lock this Storage bin for put away, go to the Status box and select **Putaway block at the bottom -> Save your entry.**

Change Storage Bin

Warehouse No. **E200** ple w/h
 Storage Bin 0030-CC-01-01

Stor. Bin | Stock | Invent. | Bin Sectioning | Statistic | Activity Areas | Whse Tasks

Storage Type 0020 Rack Storage
 Storage Section 0001 Fast-Moving Items
 Bin Access Type
 Fire-Cont.Sect.
 Stor. Bin Type
 Stor.Group
 Fixed Bin Type
 Maximum Weight KG %
 Max. Volume M3 %
 Total Capacity
 Aisle
 Stack
 Level
 Bin Sectn
 Bin Angle

REC St. Group
 No. of HUs
 Weight Used
 Loading Volume
 X Coordinate
 Y Coordinate
 Z Coordinate
 Bin Depth

Status

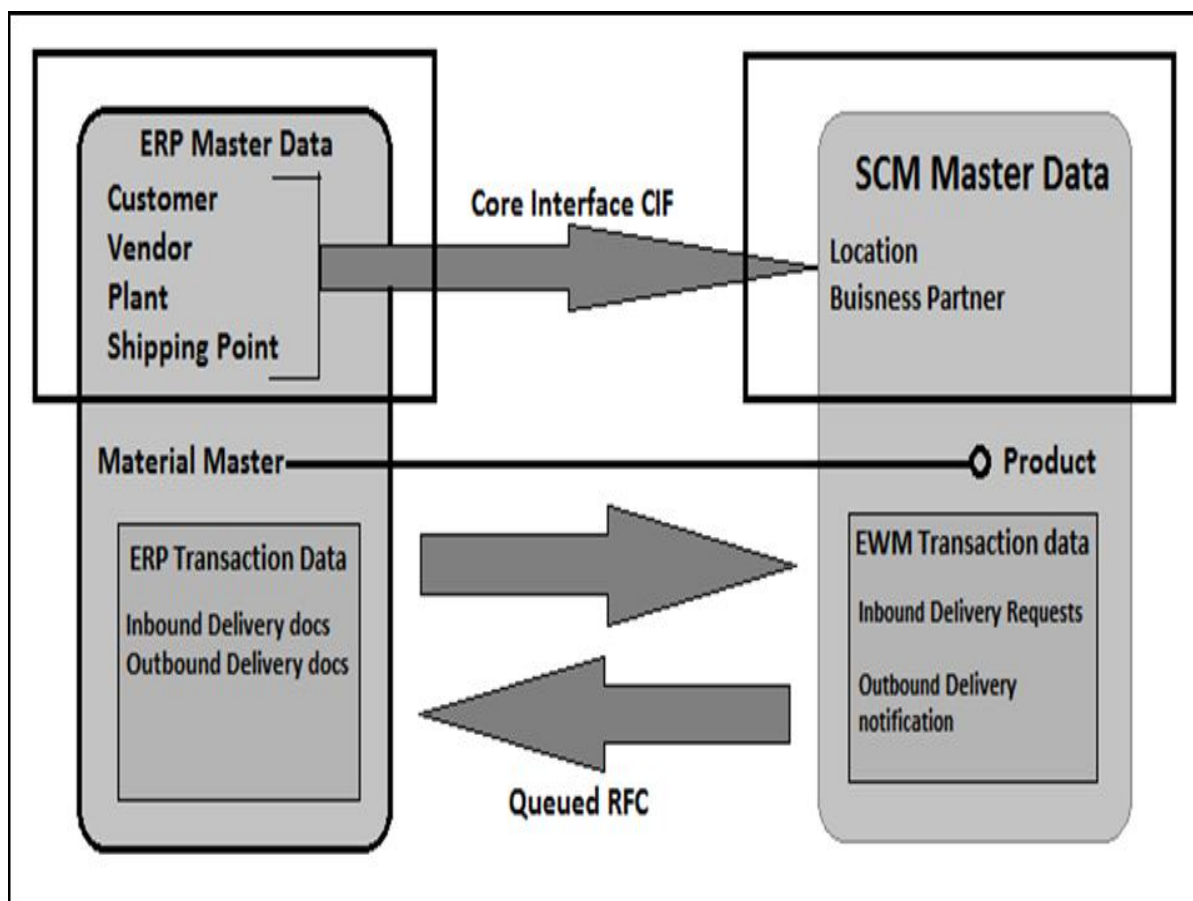
Set Putaway Block
 Set Stock Removal Bloc

Storage bin 0030-CC-01-01 has been changed

You can also remove the put-away block by going to Warehouse monitor again.

3. SAP EWM – Master Data

In the ERP system, you have master data which includes the details of the customer, vendor, plant and shipping point which are also used by the SCM. At the time of data transfer using CIM, this data is copied to the corresponding to SCM master data. For example, the location.



The master data that is transferred from the ERP system to the SCM system consists of fields like material description, unit of measures, weight volume details, etc. The product and location master data is used in all the applications of the SCM.

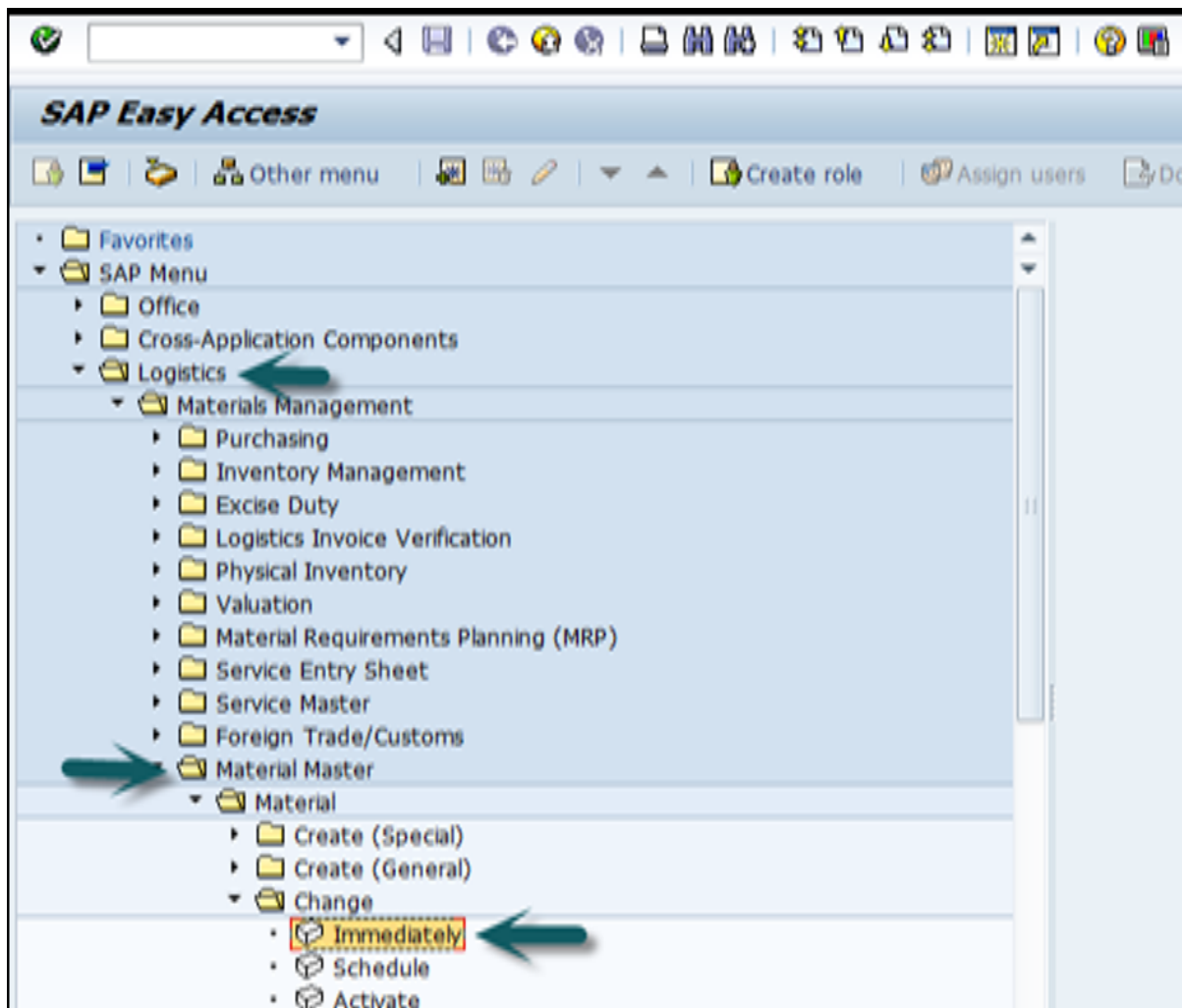
An integration model is created to perform data transfer, you can define master data type and selection criteria to find the material master data. Once this model is created you need to save and execute the model. To perform data transfer to the SCM system, you have to activate the model.

Create and Update the WPM in ERP and SCM

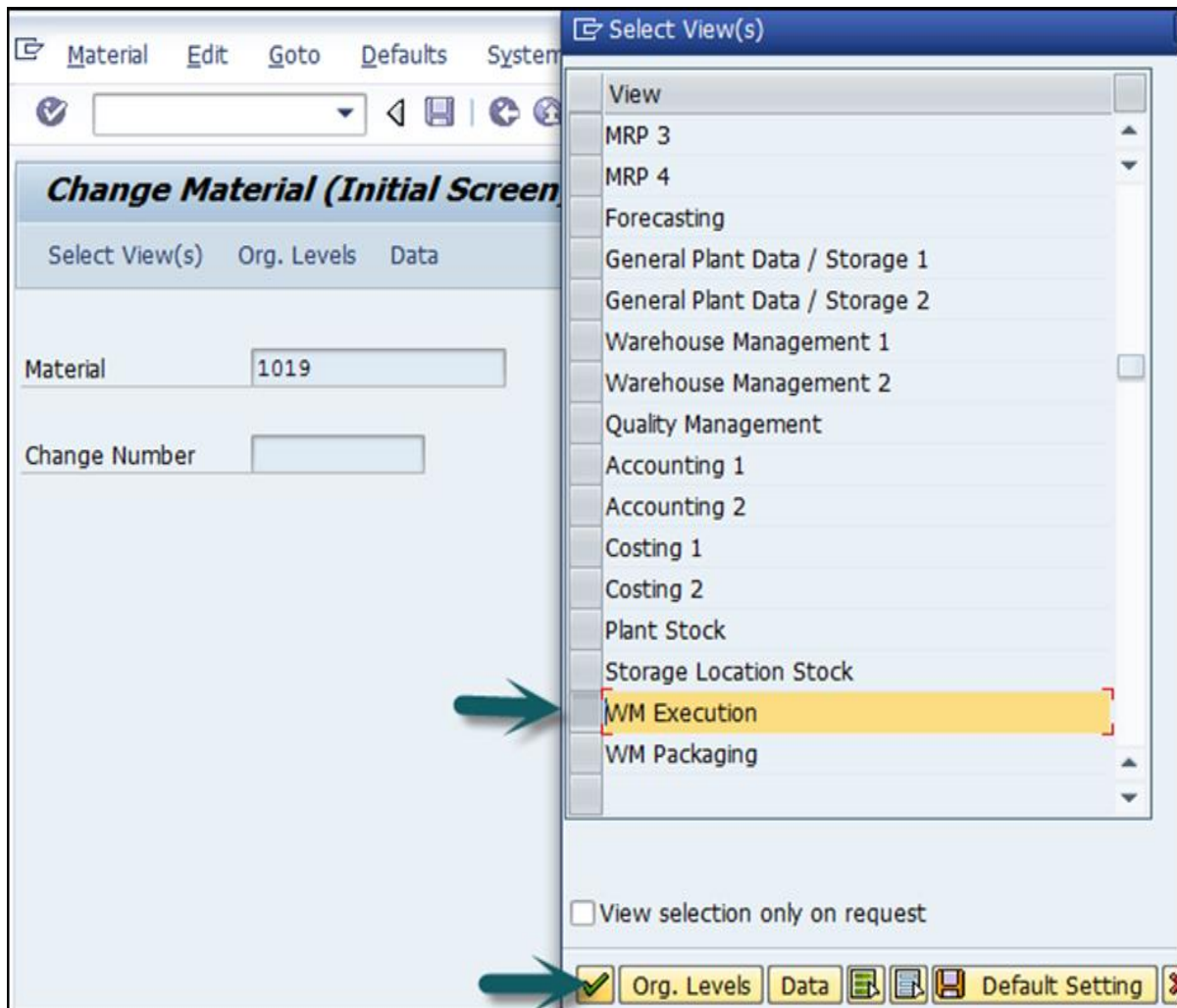
In this section we will discuss how to create and update the Warehouse Product Master in the ERP and the SCM.

Let us maintain a pilferable flag in the ERP system and confirm that it was transferred to the product master in SCM.

Navigate to **Easy Access -> Logistics -> Materials Management ->Material Master -> Change -> Immediately.**



Enter the Product number and press Enter as shown in the following screenshot.



Click on **WM Execution -> Continue**

The next step is to select the pilferable flag filed -> **Enter -> Yes in popup window**

Change Material 1019 (Raw material)

Additional Data Org. Levels Check Screen Data

Stor. loc. stck **WM Execution** WM Packaging

Material 1019 Acsis Demo - Caps

WM Execution Data

Handling Indicator	<input type="checkbox"/>
WH Material Group	<input type="checkbox"/>
WH Storage Condition	<input type="checkbox"/>
Standard HU Type	<input type="checkbox"/>
Serial No. Profile	<input type="checkbox"/>
<input checked="" type="checkbox"/> Pilferable	
<input type="checkbox"/> Rel. for HS	

Last data screen reached

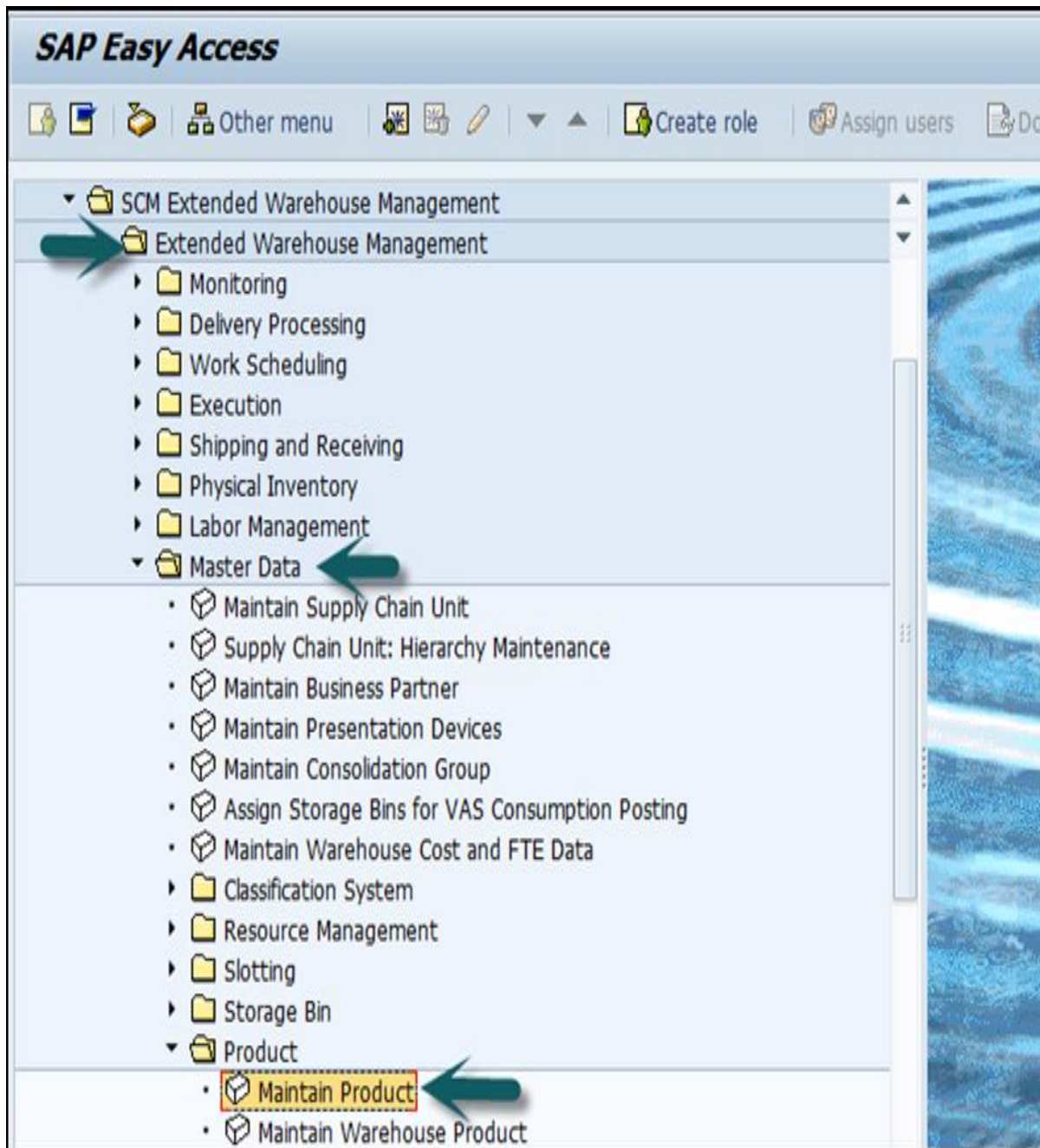
You are about to exit.

Do you want to save your data for this material first?

Yes No Cancel

You will get a confirmation that the material has been changed.

To confirm that this flag is transferred to the product master in the SCM, navigate to **Extended Warehouse Management -> Master Data -> Product -> Maintain Product.**



Enter the Product as shown in the previous screenshot and then check view Global data. Click on Display.

Product Master: Initial Screen

Choose Planning Version Delete Planning Version Parameters Display Profile

Product: 1019

Product Description

View

Global Data

Location

Lot Size Profile

Demand Profile

SNP: Demand Profile

SNP: Supply Profile

Deployment Profile

Display Change Create

Go to the **Storage tab** -> check if the field pilferable is flagged.

Create WPM for Material Master Record Transfer via CIF?

Here we will discuss on how to create a Warehouse Product Master (WPM) for a Material Record Transfer via the CIF.

Navigate to **Extended Warehouse Management -> Master Data -> Product -> Maintain warehouse product**

End of ebook preview
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