

Warehouse Management (WM) Case Study III

This case study explains an integrated warehouse management process which is triggered by a sales order for material to be delivered to the customer from a warehouse-managed storage location.

Product

SAP ERP G.B.I. Release 6.07

Level

Beginner

Focus

Warehouse Management

Authors

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Version

2.40

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MOTIVATION

Warehousing has significant value for logistics.

Current trends such as higher cost pressure, shorter cycles of innovation, higher customer expectations and globalization of markets make great demands on companies, in particular on warehouse logistics. This is especially difficult in industries with high differentiation like the consumer goods industry. Furthermore, customers have increasingly higher demands on reliability, promptness and flexibility of deliveries.

Warehouse management systems support the global flow of goods between the producer and the purchaser and facilitate near fail-proof logistic operations in increasingly complex supply chains.

PREREQUISITES

Before you use this case study, you should be familiar with navigation in the SAP system.

In order to successfully work through this case study, it is not necessary to have finished the WM exercises. However, it is recommended.

NOTES

This case study uses the Global Bike Inc. (G.B.I.) data set, which has exclusively been created for SAP UA global curricula.



Process Overview

Learning Objective Understand and perform a warehousing sales process cycle. Time 70 min

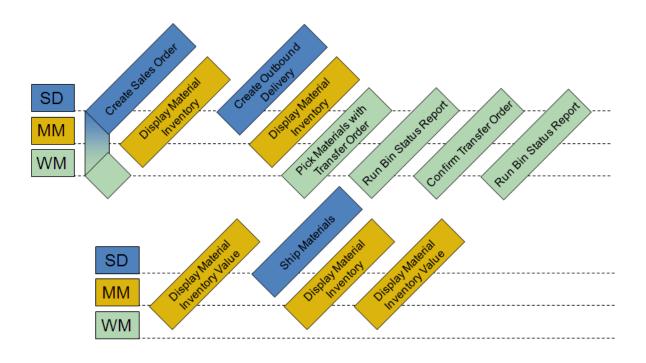
Scenario Due to increasing sales output in your San Diego distribution center, the management has decided to install a Warehouse Management System there. After running some tests you have some material in your warehouse and you can fulfill a new sales order.

Employees involved Karim Messalem (Salesperson 1)

Carolin Bruzik (Warehouse Supervisor) Sunil Gupta (Warehouse Employee) Zarah Morello (Shipping Clerk)

First, you have to create a sales order. In order to fulfill this new sales order you need to create an outbound delivery. You may remember this part from the SD case study. However, this time the process is slightly different because you deliver from a warehouse-managed storage location. After picking the materials, goods are shipped to the customer. Because this case study focuses on Warehouse Management detailed instructions of how to create the invoice and how to receive the payment are not included. However, you may use respective parts of the Sales and Distribution (SD) case study to finalize the sales process and see the financial impact.

Process description





Task Create a sales order.

© SAP SE

Time 10 min

Short Description Use the Easy Access Menu to create a sales order.

Name (Position) Karim Messalem (Salesperson 1)

To create a sales order, follow the menu path:

Menu path

Logistics ► Sales and Distribution ► Sales ► Order ► Create

In the *Create Sales Order:Initial Screen*, enter **OR** (Standard Order) as Order Type, **UW00** as Sales Organization, **WH** (Wholesale) as Distribution Channel, **BI** (Bicycles) as Division, **SD00** as Sales Office and **US** as Sales Group. Confirm your entries by clicking or pressing Enter.

OR
UW00
WH
В
SD00
US

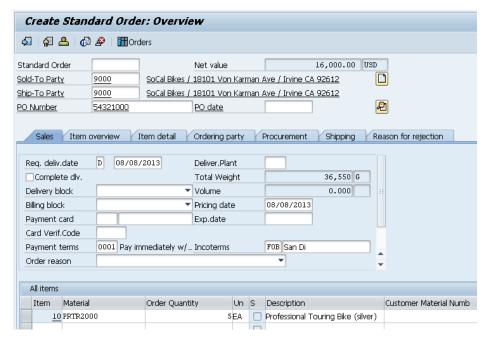
Create Sales Order: Initial Screen					
Create with Reference	2 Sales	Ritem overview	ordering party		
Order Type	DR				
Organizational Data					
Sales Organization	JW00				
Distribution Channel	VН				
Division	BI				
Sales Office	SD00				
Sales Group	JS 🗗				
_	_				

At the top of the *Create Standard Order: Overview* screen, enter 9### (SoCal Bikes Irvine; replace ### with your number) as Sold-To Party, 54321### as PO Number and leave the fields Standard Order and Ship-To Party blank. In the *Sales* tab, enter **one week from today** as Req. deliv. date and do the same in the Pricing date field. Then, enter PRTR2### as Material and 5 as Order Quantity. Finally, confirm your entries by clicking or pressing Enter. You may receive a warning message which you can ignore by clicking on .

9###

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54321### one week from today one week from today PRTR2###



Compare your entries with the screenshot above.

Then, click on to save your order. The system will assign a unique standard order number.

Standard Order 1 has been saved

Standard Order Number

Click on the exit icon to return to the SAP Easy Access screen.



Step 2: Display Material Inventory

Task View the inventory of your material.

Time 5 min

Short Description Use the Easy Access Menu to display the inventory of your material.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

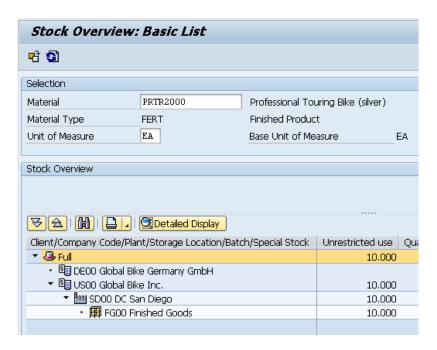
To display the material inventory, follow the menu path:

Menu path

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

In the *Stock Overview* screen, enter **PRTR2**### as Material (remember to replace ### with your number). Ensure that all other search criteria fields are blank and click on .

PRTR2###



Note that you still have the same amount of goods in San Diego. However, after double clicking on *SD00 DC San Diego* you can see that you have a Sales orders balance of 5 for your distribution center.



Click on the exit icon 6 to return to the SAP Easy Access screen.



Step 3: Create Outbound Delivery

Task Create an outbound delivery.

Time 10 min

Short Description Use the Easy Access Menu to create the outbound delivery note for the sales order.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

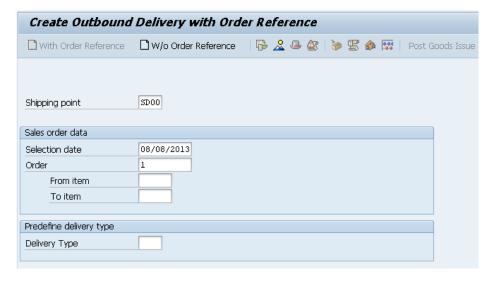
To create an outbound delivery, follow the menu path:

Menu path

Logistics ► Sales and Distribution ► Shipping and Transportation ► Outbound Delivery ► Create ► Single Document ► With Reference to Sales Order

In the *Create Outbound Delivery with Order Reference* screen, enter **SD00** as Shipping point, **7 days from today** as Selection date and the **Standard Order Number** of the order you have created in the first task as Order. Confirm your entries by clicking or pressing Enter.

SD00 7 days from today Standard Order Number



In the *Outbound Delivery Create: Overview* screen, choose the *Picking* tab and enter **FG00** as SLoc. Then click on or press Enter.

FG00

Note: Due to the fact that we are using the San Diego warehouse picking has to be done a little differently. Hence, the *Picked Qty* field is now grayed out.



Compare your entries with the screenshot above.

Then, click on 🖥 to save your outbound delivery. The system will assign a unique outbound delivery number.

Outbound Delivery Number

☑ Outbound Delivery 80000000 has been saved

Click on the exit icon to return to the SAP Easy Access screen.



Step 4: Display Material Inventory

Task View the inventory of your material again.

Time 5 min

Short Description Use the Easy Access Menu to display the inventory of your material again.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

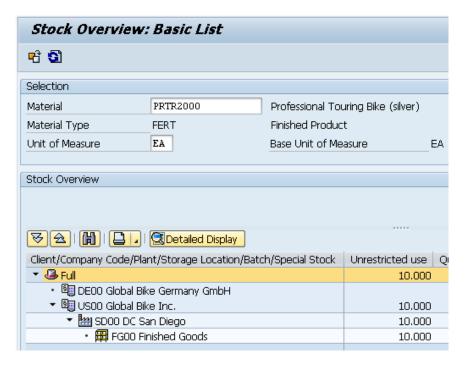
To display the material inventory, follow the menu path:

Menu path

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

In the *Stock Overview* screen, enter **PRTR2**### as Material (remember to replace ### with your number). Ensure that all other search criteria fields are blank and click on .

PRTR2###



Note that the amount of goods in San Diego has not changed yet. However, after double clicking on *SD00 DC San Diego* you can see that instead of the Sales orders balance, which is zero now, the Schedule for delivery balance is 5 for your distribution center.



Click on the exit icon 6 to return to the SAP Easy Access screen.



Step 5: Pick Materials with Transfer Order

Task Create a transfer order to pick the materials.

Time 10 min

Short Description Use the Easy Access Menu to create a transfer order based on the delivery note created previously.

Name (Position) Sunil Gupta (Warehouse Employee)

To create an outbound delivery, follow the menu path:

Menu path

Logistics ► Sales and Distribution ► Shipping and Transportation ► Picking ► Create Transfer Order ► Via Outbound Delivery Monitor

In the *Outbound Deliveries for Picking* screen, enter **SD00** as Shipping Point/Receiving Pt and **select** the Only WM Picking radio button. Then, click on 5 or press F8 to execute.

SD00 Only WM Picking



In the *Day's Workload for Picking* screen, you should see a line item with your **Outbound Delivery Number**. Select it and click on the

Outbound Delivery Number

TO in Foreground button.



In the *Create Transfer Order for Delivery Note: Initial Screen*, click on or press Enter to create your transfer order to be able to pick your documents.

On the next screen, click on 🖶 to save your transfer order.



The system will save the transfer order automatically and assign a unique transfer order number.

☑ Transfer order 0000002011 created

Transfer Order Number

Click on the exit icon twice to return to the SAP Easy Access screen.



Step 6: Run Bin Status Report

Task Check the status of your bins.

Time 5 min

Short Description Use the Easy Access Menu to run a bin status report, which will display a detailed report of each storage bin within the specified warehouse.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

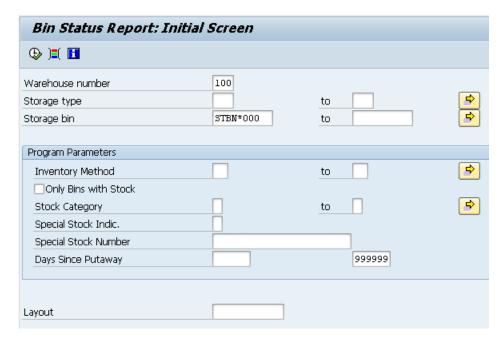
To run a bin status report, follow the menu path:

Menu path

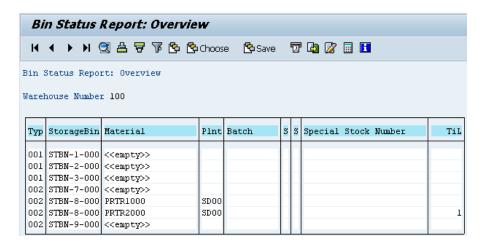
Logistics ► Logistics Execution ► Internal Whse Processes ► Bins and Stock ► Display ► Bin Status Report

In the *Bin Status Report: Initial Screen*, enter **100** (for your San Diego Warehouse) as Warehouse Number and **STBN*###** as Storage bin (replace ### with your number). Then, click on ...

100 STBN*###

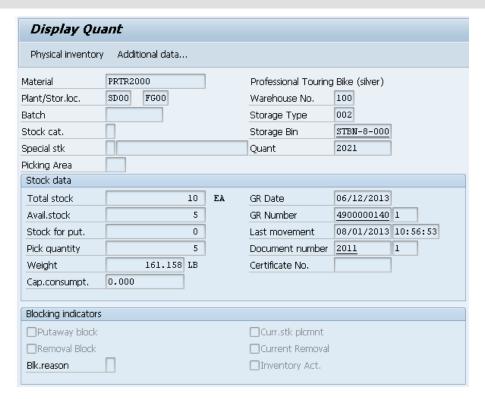


In the *Bin Status Report: Overview* screen you should see that the StorageBin **STBN-8-**### is filled.



Click on your material to display detailed information of this quant and check whether 10 pieces of your good are stored in it.

Note: As you can see 5 pieces of your material are marked as available stock and the other 5 as pick quantity.



Click on the exit icon 6 to return to the SAP Easy Access screen.





Step 7: Confirm Transfer Order

Task Confirm your transfer order.

Time 5 min

Short Description Use the Easy Access Menu to confirm the transfer order you created in the previous step. This is confirming that the goods are physically in the storage bin indicated in the transfer order.

Name (Position) Sunil Gupta (Warehouse Employee)

To confirm a transfer order, follow the menu path:

Menu path

Logistics ► Logistics Execution ► Inbound Process ► Goods
Receipt for Inbound Delivery ► Putaway ► Confirm Transfer Order
► Single Document ► In One Step

In the *Confirm Transfer Order: Initial Screen*, enter the **TO Number** from the previous task and **100** as Warehouse Number. Then, click on or press Enter.

TO Number



Note: If you have not written down the number you can search for it using

the transaction code LT23.

In the *Transfer Orders: List of Resident Documents* you have to fill in **100** as Warehouse number. Then, click on $\textcircled{\bullet}$.

In the *Confirm Transfer Order: Overview of Transfer Order Items* screen, you should see an overview of your transfer order created in the previous step. Review all of the details to make sure you have the correct quantity and storage bin.



Then, click on 🖶 to confirm your transfer order. The system will return a success message.

▼ Transfer order 0000002011 confirmed

Click on the exit icon 6 to return to the SAP Easy Access screen.

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100



Step 8: Run Bin Status Report

Task Check the status of your bins again.

Time 5 min

Short Description Use the Easy Access Menu to run a bin status report, which will display a detailed report of each storage bin within the specified warehouse.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

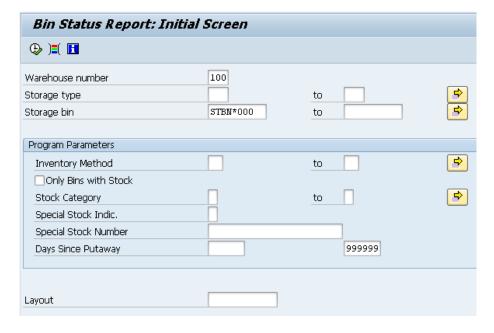
To run a bin status report, follow the menu path:

Menu path

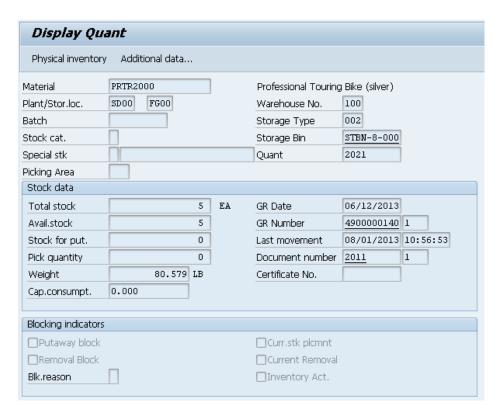
Logistics ► Logistics Execution ► Internal Whse Processes ► Bins and Stock ► Display ► Bin Status Report

In the *Bin Status Report: Initial Screen*, enter **100** (for your San Diego Warehouse) as Warehouse Number and **STBN*###** as Storage bin (replace ### with your number). Then, click on .

100 STBN*###



In the *Bin Status Report: Overview* screen click on your material in StorageBin **STBN-8-**### to display detailed information and check if there are just 5 pieces of your good left.



Click on the exit icon 6 to return to the SAP Easy Access screen.





Step 9: Display Material Inventory Value

Task View the value of your material inventory.

Time 5 min

Short Description Use the Easy Access Menu to display the value of your material inventory.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

To display the material inventory value, follow the menu path:

Menu path

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Warehouse Stock

In the *Display Warehouse Stocks of Material* screen, enter **PRTR2**### as Material (replace ### with your number). Ensure that all other search criteria fields are blank and click on ...

PRTR2###

③∣∆ ∀ ₹	F 🔀 🏂 🞝	₩ ##	□ II I I	↓ → →	
Material	Material I	escription)		Pint Name 1	
SLoc SL	Unrestricted Total Value		ransit/Transf. Total Value	In Quality Insp. Total Value	Rest
PRTR2000	Profession	nal Touring	Bike (silver)	DLOO Plant Dalla	15
FG00	0 0.00	EA USD	0 0.00	0 0.00	
PRTR2000	Profession	nal Touring	Bike (silver)	HD00 Plant Heid	elber
FG00	-	EA EUR	0 0.00	0 0.00	
PRTR2000	Profession	nal Touring	Bike (silver)	HH00 DC Hamburg	
FG00	0 0.00	EA EUR	0 0.00	0 0.00	
PRTR2000	Profession	nal Touring	Bike (silver)	MIOO DC Miami	
FG00	0 0.00	EA USD	0 0.00	0 0.00	
PRTR2000	Profession	nal Touring	Bike (silver)	SDOO DC San Die	jo
FG00	10 15,000.00	EA USD	0 0.00	0 0.00	
* Total					
	×		×	×	

Note the total value associated with the DC in San Diego.

Click on the exit icon twice to return to the SAP Easy Access screen.



Step 10: Ship Materials

Task Ship the materials.

Time 5 min

Short Description Use the Easy Access Menu to ship the materials by posting a goods issue. This will reduce unrestricted stock to reflect that the inventory is shipped. It also indicates a change of ownership.

Name (Position) Zarah Morello (Shipping Clerk)

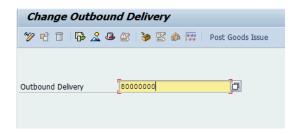
To ship materials, follow the menu path:

Menu path

Logistics ► Sales and Distribution ► Shipping and Transportation ► Outbound Delivery ► Change ► Single Document

In the *Change Outbound Delivery* screen, enter your **Outbound Delivery Number** from the *Create Outbound Delivery* task.

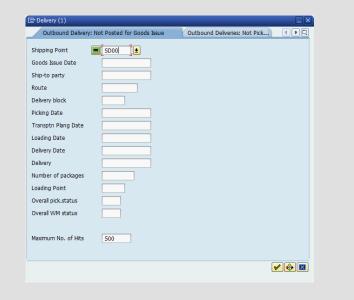
Outbound Delivery Number



Note: If you have not written down the number you can search for it using the F4 help.

To do so select the *Outbound Delivery* field and click on or press F4. In the *Outbound Delivery: Not Posted for Goods Issue* tab, enter **SD00** as Shipping Point. Then, click on or press Enter.

F4 SD00



In the next screen choose your Outbound Delivery by double-clicking on it.

Then, click on or press Enter.

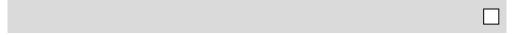
In the *Outbound Delivery ##### Change: Overview* screen, choose the *Item Overview* tab and scroll to the right until you can see the *Picked Qty* column. As you can see you picked the full amount to be delivered.



Then, click on the Post Goods Issue button. The system will return a success message.

Outbound Delivery 80000000 has been saved

Click on the exit icon to return to the SAP Easy Access screen.





Step 11: Display Material Inventory

Task View the inventory of your material again.

Time 5 min

Short Description Use the Easy Access Menu to display the inventory of your material again.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

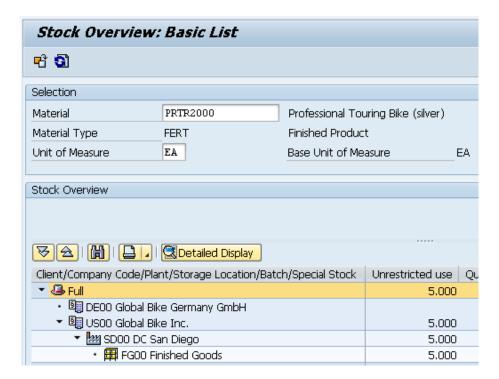
To display the material inventory, follow the menu path:

Menu path

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Stock Overview

In the *Stock Overview* screen, enter **PRTR2**### as Material (remember to replace ### with your number). Ensure that all other search criteria fields are blank and click on .

PRTR2###



Note that the amount of your good in San Diego has decreased. This represents that the 5 pieces of your material actually have been shipped.

Click on the exit icon 6 to return to the SAP Easy Access screen.



CASE STUDY



Step 12: Display Material Inventory Value

Task View the value of your material inventory again.

Time 5 min

Short Description Use the Easy Access Menu to display the value of your material inventory again.

Name (Position) Carolin Bruzik (Warehouse Supervisor)

To display the material inventory value, follow the menu path:

Menu path

Logistics ► Materials Management ► Inventory Management ► Environment ► Stock ► Warehouse Stock

In the *Display Warehouse Stocks of Material* screen, enter **PRTR2**### as Material (remember to replace ### with your number). Ensure that all other search criteria fields are blank and click on $\textcircled{\bullet}$.

PRTR2###

3 △ 🕏	7 2 % 🗗	₩ ##		→ →	
Material	Material	Description		Plnt Name 1	
SLoc SL	Unrestricted Total Value	Unit T Crcy	ransit/Transf. Total Value	In Quality Insp. Total Value	Rest T
PRTR2000	Professio	nal Touring	Bike (silver)	DLOO Plant Dal	las
FG00	0 0.00	EA USD	0 0.00	0 0.00	
PRTR2000	Professio	nal Touring	Bike (silver)	HD00 Plant Hei	delberg
FG00	0 0.00	EA EUR	0 0.00	0 0.00	
PRTR2000	Professio	nal Touring	Bike (silver)	HH00 DC Hambur	ı
FG00	0 0.00		0 0.00	0 0.00	
PRTR2000	Professional Touring B:		Bike (silver)	MIOO DC Miami	
FG00	0 0.00		0 0.00	0 0.00	
PRTR2000	Professio	nal Touring	Bike (silver)	SDOO DC San Die	ego .
FG00	5 7,500.00		0.00	0 0.00	
* Total					
	×		×	×	

As you can see the values associated with the material in San Diego has decreased. Also there is no value associated to the *Transit/Transf.* for San Diego. This indicates the change of ownership after processing the shipping order.

Click on the exit icon twice to return to the SAP Easy Access screen.

WM III Challenge

Learning Objective Understand and perform a warehousing sales process cycle. Time 75 min

Motivation After having finished the *Warehouse Management III* case study successfully you should now be able to solve the following challenge.

Scenario The warehouse management system has been tested without any problems, so the management decided to use the system productively. Due to a higher demand of bikes for the Tour de France black Professional Touring Bikes are almost out of stock in Europe. The Distribution Center in San Diego still has them available so that the delivery of a wholesale sales order has to be managed by the new warehouse management system.

The customer VeloDOM from Magdeburg (Germany) has ordered 20 black Professional Touring Bikes with a delivery time of 10 days.

Task Information You can use the case study *Warehouse Management III* as a guideline, but it is recommended to complete this challenge without further assistance to prove your WM skills.