

Warehouse Management (WM) I

This case study explains an integrated warehouse management process which is triggered by a purchase order for a warehouse-managed storage location.

Product

S/4HANA 2022 Global Bike

Fiori 3.0

Level

Beginner

Focus

Warehouse Management

Authors

Simha Magal Stefan Weidner Chris Bernhardt

Version

4.2

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MOTIVATION

Warehousing has significant value for logistics.

Current trends such as higher cost cycles pressure, shorter innovation. higher customer expectations and globalization of markets make great demands on particularly companies, logistics. warehouse This is especially difficult in industries with high differentiation like the consumer goods industry. Furthermore, customers 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 work successfully through this case study, it is not necessary to finish the WM exercises. Anyway, it is recommended.

NOTES

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





Process Overview

Learning Objective Understand and perform a warehousing process for externally procured goods.

Time 70 min

Scenario Due to increasing sales output in your San Diego distribution center, management has decided to install a Warehouse Management System. This implementation has just been completed and the new system needs to be tested. For this purpose, trading goods should be procured by a vendor and put in the stock in San Diego, using the new warehouse management system.

Employees involved Jennifer Brown (Plant Manager)

Carolin Bruzik (Warehouse Supervisor) Sunil Gupta (Warehouse Employee) Yoshi Agawa (Goods Receipt Clerk)

In order to receive goods from a vendor you need to create a purchase order. Goods will be sent by the vendor to the distribution center and you will create a goods receipt in San Diego. The system will automatically create a transfer order for the received goods to put them into stock. In conclusion, you will check if the goods were stored in the correct storage bins. As this case study focuses on Warehouse Management, detailed instructions of how to receive the invoice and how to pay the vendor are not included. However, you may use respective parts of the Materials Management (MM) case study to finalize the procurement process and see the financial impact.

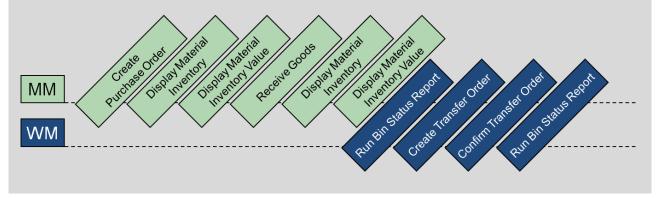


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Step 1: Create Purchase Order

Task Create a purchase order.

Time 10 min

Short Description Use the SAP Fiori Launchpad to create an immediate purchase order for materials from a supplier, i.e. to start the procurement process without having created a purchase requisition before.

Name (Position) Jennifer Brown (Plant Manager)

To create a purchase order, use the app *Create Purchase Order* in the *Warehouse Management* area on the *Storage Purchasing* page in the *Plant Manager* role.

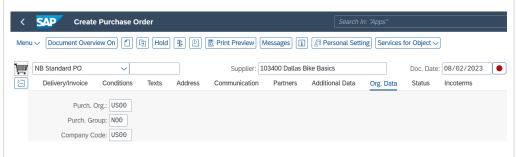
Create Purchase Order

Note By clicking Sclose you can close the help on the left side of the screen.

This can be shown again at any time by clicking on

In the *Create Purchase Order* screen, change the type of purchase order to **NB Standard PO** and enter **103**### (replace ### with your number) as Supplier. Confirm your entries by clicking Enter and accept any warning messages.

Then, fill in **US00** as Purch.Org, **N00** as Purch. Group and **US00** as Company Code. Press Enter again to confirm your entries.



Select to expand the *Item Overview*. In the item overview enter **KPAD1**### as Material (replace ### with your number), **50** as PO Quantity, **8 days from today** as Delivery Date, **40** USD as Net Price, **SD00** as Plant and **TG00** as Storage Location.

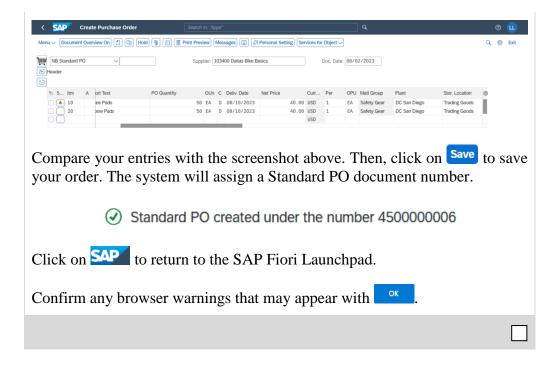
In the next row, repeat your entries but choose **EPAD1**### as Material. Confirm your entries by pressing Enter.

NB Standard PO 103###

US00 N00 US00

KPAD1### 50 8 days from today 40 SD00 TG00

Repeat for EPAD1###





Step 2: Display Material Inventory

Task View the inventory of your material.

Time 5 min

Short Description Use the SAP Fiori Launchpad to display the inventory of your material.

Name (Position) Jennifer Brown (Plant Manager)

To display the material inventory, use in the *Warehouse Management* area on the *Storage Purchasing* page in the *Plant Manager* role the app *Display Stock Overview*.

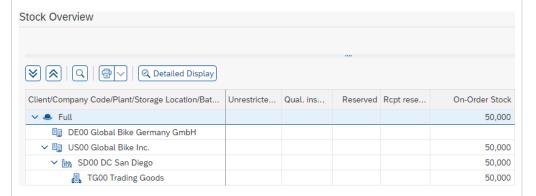
Display Stock Overview



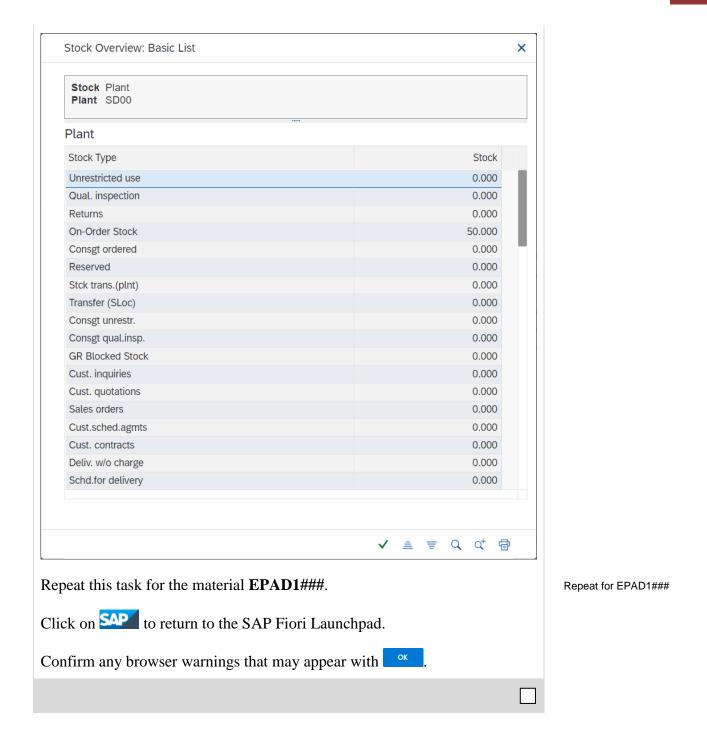
Enter **KPAD1**### as Material (remember to replace ### with your number). All other settings can be applied.

KPAD1###

Choose Execute. Note that the amount of your good for unrestricted use in San Diego is zero. However, the just created on-order stock can be seen.



After double clicking on *SD00 DC San Diego*, you will see a separate *Stock Overview* for your distribution center and the On-Order Stock balance of 50.





Step 3: Display Material Inventory Value

Task View the value of your material inventory.

Time 5 min

Short Description Use the SAP Fiori Launchpad to display your material inventory.

Name (Position) Jennifer Brown (Plant Manager)

To display the material inventory value, use in the *Warehouse Management* area on the *Storage Purchasing* page in the *Plant Manager* role the app *Display Warehouse Stock*.

Display Warehouse Stock



In the *Display Warehouse Stocks of Material* screen, enter **KPAD1**### as Material. Ensure that all other search criteria fields are blank and click on **Execute**

KPAD1###

SLoc SL	Unrestricted	Unit	Transit/Transf. Qua	ality Inspection	Restricted-Use	Blocked	Return
	Total Value	Crcy	Total Value	Total Value	Total Value	Total Value	Total Valu
KPAD1000			Knee Pads		HD00 Plant He	eidelberg	
TG00	0	EA	0	0	Θ	0	0
	0.00	EUR	0.00	0.00	0.00	0.00	0.00
KPAD1000			Knee Pads		HH00 DC Hambu	ırg	
TG00	Θ	EA	0	Θ	Θ	0	9
	0.00	EUR	0.00	0.00	0.00	0.00	0.00
KPAD1000			Knee Pads		MI00 DC Miami	i	
TG00	Θ	EA	0	Θ	Θ	Θ	G
	0.00	USD	0.00	0.00	0.00	0.00	0.00
KPAD1000			Knee Pads		SD00 DC San [Diego	
TG00	0	EA	0	0	0	0	G
	0.00	USD	0.00	0.00	0.00	0.00	0.00
* Total							
	×		×	×	×	×	×

You can see that all values listed for this material are currently zero.

Repeat this task for the material EPAD1###.

Repeat for EPAD1###

Click SAP Fiori Launchpad.

Confirm any browser warnings that may appear with	ок	
]



Step 4: Receive Goods

Task Receive goods at receiving plant.

Time 5 min

Short Description Use the Fiori Launchpad to create a goods receipt which documents the receiving of your materials in San Diego.

Name (Position) Yoshi Agawa (Goods Receipt Clerk)

To create a goods receipt, use the app *Post Goods Receipt* in the *Warehouse Management* area on the *Storage Purchasing* page in the *Goods Receipe Clerk* role.



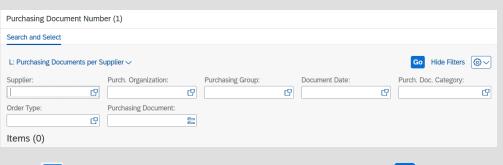
In the *Goods Receipt Purchase Order* screen, check that **A01 Goods Receipt** is selected in the first drop-down menu, that **R01 Purchase Order** is selected for Type of Goods Receipt and put your **Purchase Order Number** in the blank space next to it.

A01 Goods Receipt R01 Purchase Order PO Number

Note If you have not written down the PO number you have created in the first task, you may use the input help. Click in the PO number field (first blank field next to the second drop-down field) and choose \Box .

103###

In the following screen, use \checkmark to choose the *Purchasing Documents per Supplier* tab. Then, enter 103### as *Supplier*.



Press Go, select your order from the results list and choose ok to apply the entry.

After your order number is filled in, please blank out the position field (field behind your order number).

Note If you do not clear this field, only one of the two line items of your purchase order will be transferred. 4500000005 A01 Goods Receipt **R01** Purchase Order Then, click on . After your purchase order data appears select the check boxes in the OK OK column. **Note** If one of the lines is grayed out, then click on in the lower area to close the Detail data. 50 Make sure that Quantity is 50, SLoc is Trading Goods (TG00), Movement **Trading Goods** Type is **101** and Stock Type is **Unrestricted Use**. Unrestricted Use Document Date: 08/03/2023 Posting Date: 08/03/2023 Then, click on Post to save your receipt. The system will assign a unique Material document number material document number. ✓ Material document 500000018 posted Click on to return to the SAP Fiori Launchpad. Confirm any browser warnings that may appear with



Step 5: Display Material Inventory

Task View the inventory of your material again.

Time 5 min

Short Description Use the Fiori Launchpad to display the inventory of your material again.

Name (Position) Jennifer Brown (Plant Manager)

To display the material inventory, use in the *Warehouse Management* area on the *Storage Purchasing* page in the *Plant Manager* role the app *Display Stock Overview*.

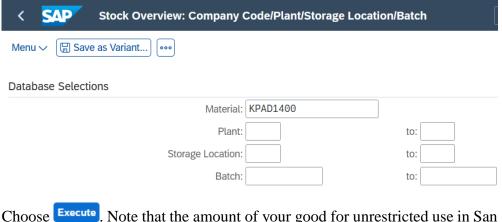
Display Stock Overview

Fiori App

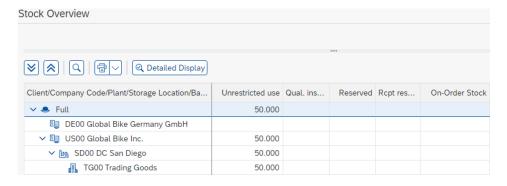
Display Stock Overview

Enter **KPAD1**### as Material (remember to replace ### with your number). All other settings can be applied.

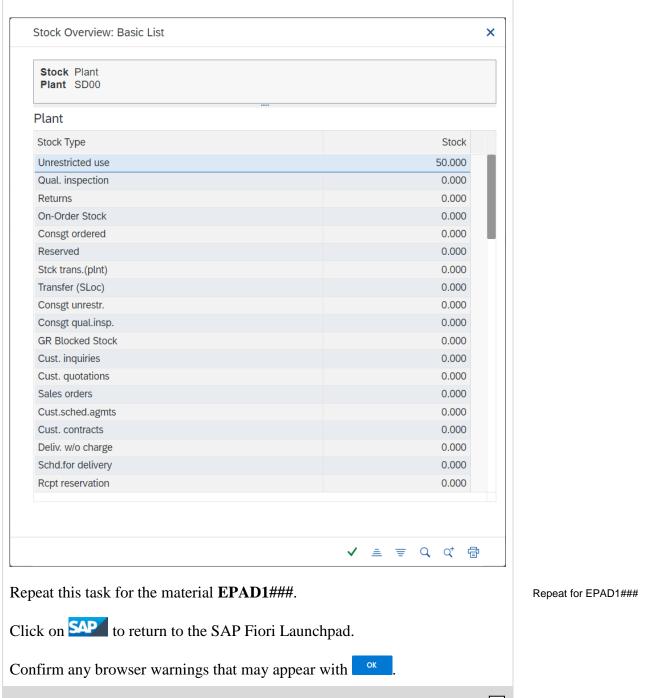
KPAD1###



Choose Execute. Note that the amount of your good for unrestricted use in San Diego has changed and that there is no longer any order inventory for it.



By double clicking on SD00 DC San Diego, you can again display the associated Basic List of the Stock Overview.





Step 6: Display Material Inventory Value

Task View the value of your material inventory again.

Time 5 min

Short Description In this step, you will use the Fiori Launchpad to display the value of your material inventory again.

Name (Position) Jennifer Brown (Plant Manager)

To display the material inventory value, use in the *Warehouse Management* area on the *Storage Purchasing* page in the *Plant Manager* role the app *Display Warehouse Stock*.

Display Warehouse Stock



In the *Display Warehouse Stocks of Material* screen, enter **KPAD1**### as Material (remember to replace ### with your number). Ensure that all other search criteria fields are blank and click on Execute.

KPAD1###

	×		×	×	×	×	×
* Total							
	2,000.00	USD	0.00	0.00	0.00	0.00	0.00
Г G 00	50	EA	0	0	0	0	6
KPAD1000			Knee Pads		SD00 DC San D)iego	
	0.00	USD	0.00	0.00	0.00	0.00	0.00
TG00	Θ	EA	0	Θ	0	0	0
KPAD1000			Knee Pads		MI00 DC Miami	i e	
	0.00	EUR	0.00	0.00	0.00	0.00	0.00
TG00		EA	0	Θ	0	Θ	0
KPAD1000			Knee Pads		HH00 DC Hambu	ırg	
	0.00	LOIL		0.00	0.00		
1000	0.00		0.00	0.00	0.00	0.00	0.00
KPAD1000 TG00		EA	Knee Pads	0	HD00 Plant He	eidelberg O	0
	Total value	Crcy	Total Value	Total Value	Total value	Total value	10000 7000
3E0C 3E	Total Value		Total Value	Total Value	Total Value	Total Value	Total Valu
Material SLoc SL	Unrestricted	Undt	Material Descrip Transit/Transf. Qua		Plnt Name 1 Restricted-Use	Blocked	Return

As you can see the value for the 50 units of your material has been added to the distribution center in San Diego.

Repeat this task for the material **EPAD1**###.

EPAD1###

Click on to return to the SAP Fiori Launchpad	



Step 7: Run Bin Status Report

Task Check the status of your bins.

Time 5 min

Short Description Use the SAP Fiori Launchpad 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, use in the *Warehouse Management* area on the *Storage Purchasing* page in the *Warehouse Supervisor* role the app *Run Bin Status Report*.



Fiori App

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 Execute.

		100
ST	TBN ¹	*###

SAP Bin Status Report: Initial Screen	
Menu ✓ ☐ Save as Variant ☐ ○••	
* Warehouse number: 100	
Storage type:	to:
Storage bin: STBN*400	to:

In the *Bin Status Report: Overview* screen you should see a list of all your storage bins for the entire warehouse in San Diego. Double click on one of your storage bins to get detailed information. As you can see the ordered materials are not present yet. Currently they are located in temporary bins.

Тур	StorageBin	Material	Plnt
001	STBN-1-400	< <empty>></empty>	
001	STBN-2-400	< <empty>></empty>	
001	STBN-3-400	< <empty>></empty>	
002	STBN-7-400	< <empty>></empty>	
002	STBN-8-400	PRTR1400	SD00
002	STBN-8-400	PRTR2400	SD00
002	STBN-9-400	ORMN1400	SD00
002	STBN-9-400	ORWN1400	SD00

Click on SAP for to return to the SAP Fiori Launchpad.



Step 8: Create Transfer Order

Task Create a transfer order.

Time 10 min

Short Description Use the Fiori Launchpad to create a transfer order to place your goods into your storage bin. It is a handoff from inventory management to warehouse management. The system recognizes that there are goods that have been received but need to be put away.

Name (Position) Sunil Gupta (Warehouse Employee)

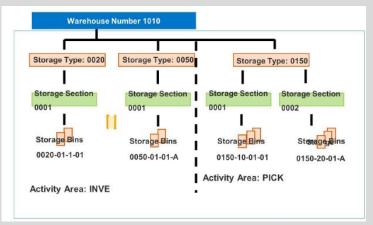
To create a transfer order, use in the Warehouse Management area on the Storage Purchasing page in the Warehouse Employee role the app Display Transfer Requirement – List for Material.

Display Transfer Requirement List for Material Fiori App

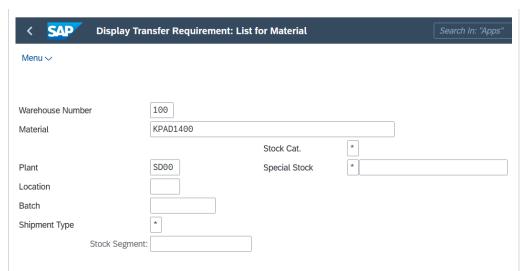
100 KPAD1### SD00

In the *Display Transfer Requirement: List of Material* screen, enter **100** (for your San Diego Warehouse) as Warehouse Number, **KPAD1**### as Material (replace ### with your number) and **SD00** as Plant. Then, press Enter.

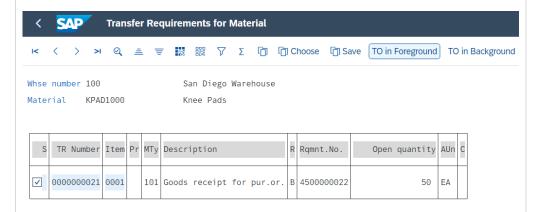
Note: The warehouse number is the highest level of organizational unit in warehouse management. In practice, the warehouse number usually corresponds to a physical building or distribution center. Each warehouse number has a substructure that maps the spatial relationship in the warehouse complex in detail.



Storage bins are the lowest level of organizational structure. They are assigned to a storage type and a storage section (if one exists). Storage bins represent the physical location where the goods are stored in the warehouse.

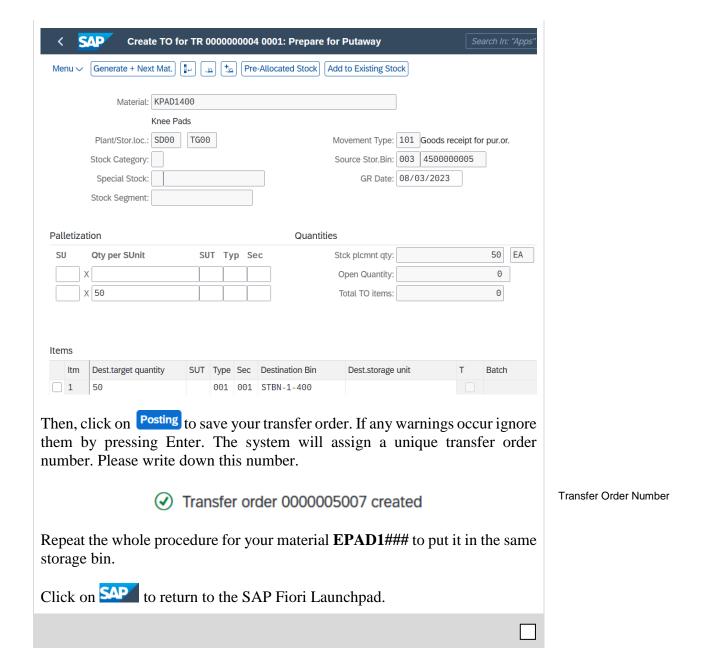


In the *Transfer Requirements for Material* screen, you should see a line item describing the goods just received for your purchase order. The requirement number should be the same as the purchase order number you received earlier. Make sure that the line item is selected and click on To in Foreground button.



In the *Create TO for TR 00000000XX 0001: Prepare for Putaway* screen, hit Enter to copy your quantity of 50 from the *Palletization* section to the *Items* section. Enter **001** as Sec, **STBN-1-###** as Destination Bin (replace ### with your number) and use F4 to select **Shelf Storage** as Type. Confirm your entries by pressing Enter.

001 STBN-1-### 001 (Shelf Storage)





Step 9: Confirm Transfer Order

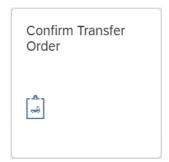
Task Confirm your transfer order.

Time 10 min

Short Description Use the Fiori Launchpad to confirm the transfer order you created in the previous step. This is to confirm that the goods are physically in the storage bin indicated in the transfer order.

Name (Position) Sunil Gupta (Warehouse Employee)

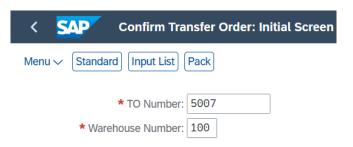
To confirm a transfer order, use in the *Warehouse Management* area on the *Storage Purchasing* page in the *Warehouse Employee* role the app *Confirm Transfer Order*.



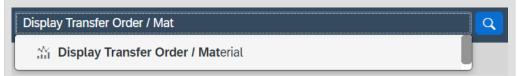
Fiori App

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

Transfer Order Number



Note If you have not written down the number, you can search for it using the app *Display Transfer Order / Material*.

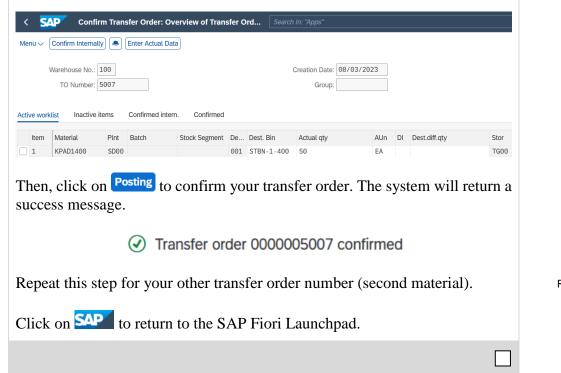


In the *Transfer Orders for Materials* you have to fill in **100** as *Warehouse number* and your material **KPAD1**### / **EPAD1**### to display the regarding transfer order. Then, click on Execute.

100 KPAD1### EPAD1###

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.



Repeat for second Transfer Order



Step 10: Run Bin Status Report

Task Check the status of your bins again.

Time 5 min

Short Description Use the Fiori Launchpad 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, use in the Warehouse Management area on the Storage Purchasing page in the Warehouse Supervisor role the app Run Bin Status Report.



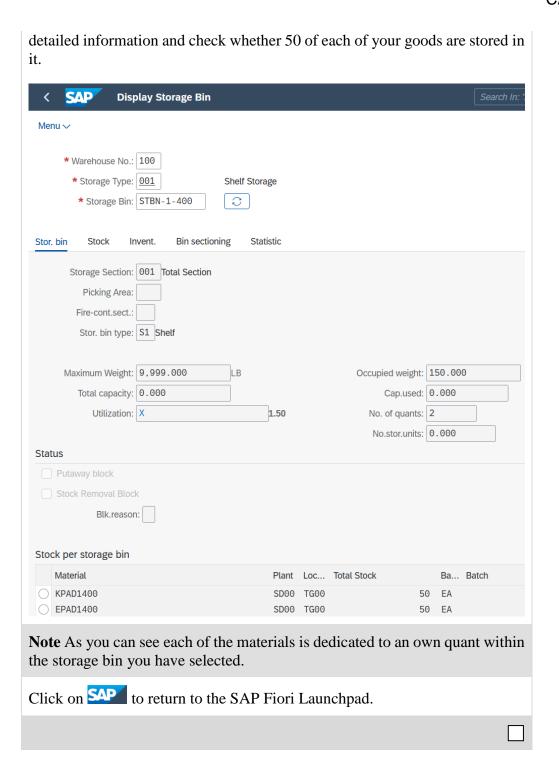
Fiori App

100 STBN*###

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 Execute.

Тур	StorageBin	Material	Plnt
001	STBN-1-400	EDAD1400	SD00
001	31DN-1-400	EPAD1400	3000
001	STBN-1-400	KPAD1400	SD00
001	STBN-2-400	< <empty>></empty>	
001	STBN-3-400	< <empty>></empty>	
002	STBN-7-400	< <empty>></empty>	
002	STBN-8-400	PRTR1400	SD00
002	STBN-8-400	PRTR2400	SD00
002	STBN-9-400	ORMN1400	SD00
002	STBN-9-400	ORWN1400	SD00

In the *Bin Status Report: Overview* screen you should see that the Storage Bin **STBN-1-**### is filled now. Click on one of your storage bins to display



WM I Challenge

Learning Objective Understand and perform a warehousing process for ext. **Time** 70 min goods.

Motivation After having finished the *Warehouse Management I* 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. Now your task is to order two different products (water bottles and road helmets) from the supplier *Spy Gear*, 50 pieces each. A water bottle will cost 11 USD and a road helmet will cost 27 USD. The trading goods should be delivered in 8 days.

After the goods arrived in your Distribution Center in San Diego, they need to be transferred in two different bins.

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