Warehouse Management (WM) III

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

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| Product  S/4HANA 2020  Global Bike  Fiori 3.0  Level  Beginner  Focus  Warehouse Management  Authors  Simha Magal  Stefan Weidner  Chris Bernhardt  Version  4.1  Last Update  June 2022 | 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, particularly on warehouse logistics. This is especially difficult in industries with high distinction 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 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 (GBI) data set, which has been exclusively created for SAP UA global curricula. |

|  | Process Overview | |
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| **Learning Objective** Understand and perform a warehousing sales process cycle.  **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 (Sales Person 1 US West)  Carolin Bruzik (Warehouse Supervisor)  Sunil Gupta (Warehouse Employee)  Zarah Morello (Good Issue Clerk) | | **Time** 70 min |
|  | | |
| 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. | | |
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|  | Step 1: Create Sales Order | |
| **Task** Create a sales order.  **Short Description** Use the Fiori Launchpad to create a sales order.  **Name (Position)** Karim Messalem (Sales Person 1 US West) | | **Time** 10 min |
|  | |  |
| To create a sales order, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Sales Person* role the app *Manage Sales Order.* | | Fiori App |
|  | |  |
| In the *Manage Sales Order* page, click on *Create Sales Order – VA01**.* | |  |
| In the *Create Sales Documents* 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  BI  SD00  US |
|  | |  |
| At the top of the *Create Standard Order: Overview* screen, enter **133###** (SoCal Bikes Irvine; replace ### with your number) as Sold-To Party and as Ship-To-Party, **54321###** as Cust. Reference and leave the fields Standard Order blank. | | 133###  54321### |
| 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 pressing Enter. You may receive a warning message which you can ignore. | | one week from today  one week from today  PRTR2###  5 |
|  | |  |
| 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 Number |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 2: Display Material Inventory | |
| **Task** View the inventory of your material.  **Short Description** Use the Fiori Launchpad to display the inventory of your material.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 5 min |
|  | |  |
| To display the material inventory, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Display Stock Overview.* | | Fiori App |
|  | |  |
| In the *Stock Overview* screen, enter **PRTR2###** as Material (remember to replace ### with your number). | | PRTR2### |
|  | |  |
| Choose . | |  |
|  | |  |
| Note that you still have the same amount of goods in San Diego. | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 3: Create Outbound Delivery | |
| **Task** Create an outbound delivery.  **Short Description** Use the SAP Fiori Launchpad to create the outbound delivery note for the sales order.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 10 min |
|  | |  |
| To create an outbound delivery, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Create Outbound Delivery.* | | Fiori App |
|  | |  |
| In the *Create Outbound Delivery* screen, enter **133###** (SOCAL Bikes Irvine; replace ### with your number) as Ship-To Party, **SD00** as Shipping point, and **Due up until next week** as Planned Creation Date. Start the search by pressing . | | 133###  SD00  Due up until  next week |
| In the *Create Outbound Deliveries* screen, select the Sales Document and click on the button . You will receive a message that one log was created. | |  |
|  | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 4: Change Outbound Delivery | |
| **Task** Change the outbound delivery.  **Short Description** Use the SAP Fiori Launchpad to assign the storage location to the outbound delivery note for the sales order.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 10 min |
|  | |  |
| To change the outbound delivery, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Change Outbound Delivery.* | | Fiori App |
|  | |  |
| In the *Change Outbound Delivery* screen, use the F4 help in the field *Outbound Delivery*. In the tab *Outbound Delivery: Not Pasted for Goods Issue* enter **133###** (SOCAL Bikes Irvine; replace ### with your number) as Ship-To Party and **SD00** as Shipping point to find your Outbound Delivery number. | | F4  133###  SD00 |
|  | |  |
| Confirm your entries by pressing . | |  |
|  | |  |
| Double-click on your outbound delivery to transfer it to the field Outbound Delivery. | |  |
|  | |  |
| Confirm it with . | |  |
|  | |  |
| Enter your Storage Location **Finished Goods** and confirm with Enter. By filling the field Storage Location (SLoc), the SAP System realizes that you selected a WM controlled warehouse. | | FG00 |
| Click on  to save your changes. | |  |
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| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 5: Display Material Inventory | |
| **Task** View the inventory of your material again.  **Short Description** Use the Fiori Launchpad to display the inventory of your material again.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 5 min |
|  | |  |
| To display the material inventory, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Display Stock Overview.* | |  |
|  | | Fiori App |
| In the *Stock Overview* screen, enter **PRTR2###** as Material(remember to replace ### with your number). Confirm with . | | PRTR2### |
|  | |  |
| Note that the amount of goods in San Diego has not changed yet. | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 6: Pick Materials with Transfer Order | | |
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| **Task** Create a transfer order to pick the materials.  **Short Description** Use the Fiori Launchpad to create a transfer order based on the delivery note created previously.  **Name (Position)** Sunil Gupta (Warehouse Employee) | | **Time** 10 min |
|  | |  |
| To create an outbound delivery, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Employee* role the app *Outbound Deliveries for Picking.* | | Fiori App |
|  | |  |
| In the *Outbound Deliveries for Picking* screen, enter **SD00** as Shipping Point/Receiving Pt and select **Only WM Picking***.* Then, click on  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  button. | | Outbound Delivery Number |
|  | |  |
| In the *Create Transfer Order for Delivery Note: Initial Screen*, press Enter to create your transfer order to be able to pick your documents. This will produce the following screen. | |  |
|  | |  |
| 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. Please note your number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | Transfer Order Number |
|  | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 7: Run Bin Status Report | |
| **Task** Check the status of your bins.  **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) | | **Time** 5 min |
|  | |  |
| To run a bin status report, use in the *Warehouse Management* area on the *Issue from Storage* 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 . | | 100  STBN\*### |
| **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 *Bin Status Report: Overview* screen you should see that the Storage Bin**STBN-8-###** is filled. | |  |
|  | |  |
| Click on your material to display detailed information of this quant and check whether 20 pieces of your good are stored in it. | |  |
| **Note** As you can see 15 pieces of your material are marked as available stock and the other 5 as pick quantity. | |  |
|  | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 8: Confirm Transfer Order | |
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| **Task** Confirm your transfer order.  **Short Description** Use the Fiori Launchpad to confirm the transfer order, you created in the previous step. This confirms that the goods are physically in the storage bin, indicated in the transfer order.  **Name (Position)** Sunil Gupta (Warehouse Employee) | | **Time** 5 min |
|  | |  |
| To confirm a transfer order, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Employee* role the app *Confirm Transfer Order.* | |  |
|  | | Fiori App |
| In the *Confirm Transfer Order: Initial Screen*, enter the **TO Number** from the previous task and **100** as Warehouse Number. Then, press Enter. | | TO Number  100 |
| **Note** If you have not written down the number, you can search for it using the app *Display Transfer Order*.  In the *Transfer Orders: List of Resident Documents* you have to fill in **100** as *Warehouse number*. Then, click on . | | 100 |
|  | |  |
| 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. | |  |
|  | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 9: Run Bin Status Report | | |
| **Task** Check the status of your bins again.  **Short Description** Use the Fiori Launchpad to run a bin status report, which displays a detailed report of each storage bin within the specified warehouse.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 5 min |
|  | |  |
| To run a bin status report, use in the *Warehouse Management* area on the *Issue from Storage* 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 . | | 100  STBN\*### |
|  | |  |
| In the *Bin Status Report: Overview* screen click on your material in Storage Bin**STBN-8-###** to display detailed information and check if there are just 15 pieces of your good left. | |  |
|  | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 10: Display Material Inventory Value | |
| **Task** View the value of your material inventory.  **Short Description** Use the Fiori Launchpad to display the value of your material inventory.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 5 min |
|  | |  |
| To display the material inventory value, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Display Warehouse Stock.* | |  |
|  | | Fiori App |
| In the *Display Warehouse Stocks of Material* screen, enter **PRTR2###** as Material(replace ### with your number) and **SD00** as Plant. Ensure that all other search criteria fields are blank and click on . | | PRTR2###  SD00 |
|  | |  |
| Note the total value associated with the DC in San Diego. | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 11: Ship Materials | |
| **Task** Ship the materials.  **Short Description** Use the Fiori Launchpad 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 (Good Issue Clerk) | | **Time** 5 min |
|  | |  |
| To ship materials, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Good Issue Clerk* role the app *Change Outbound Delivery.* | |  |
|  | | Fiori App |
| In the *Change Outbound Delivery* screen, enter your **Outbound Delivery Number** from the *Create Outbound Delivery* task and press Enter. | | Outbound Delivery Number |
|  | |  |
| **Note** If you have not written down the number you can search for it using the F4 help by choosing  .  For doing it, please select the *Ship-To Party* field and press F4. In the *Select: Ship-To Party* pop up, enter **Irvine** as City and **\*###** as Customer. Then, click on  or press Enter. | | Irvine  \*### |
|  | |  |
| Select your customer by double-clicking.. | |  |
| 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  button. The system will return a success message. | |  |
|  | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 12: Display Material Inventory | |
| **Task** View the inventory of your material again.  **Short Description** Use Fiori Launchpad to display the inventory of your material again.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 5 min |
|  | |  |
| To display the material inventory, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Display Stock Overview .* | | Fiori App |
|  | |  |
| In the *Stock Overview* screen, enter **PRTR2###** as Material (remember to replace ### with your number). Choose . | | PRTR2### |
|  | |  |
| Note that the amount of your goods in San Diego has decreased. This represents that 5 pieces of your material actually have been shipped. | |  |
| Click on  to return to the SAP Fiori Launchpad. | |  |
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|  | Step 13: Display Material Inventory Value | | |
| **Task** View the value of your material inventory again.  **Short Description** Use the SAP Fiori Launchpad to display the value of your material inventory again.  **Name (Position)** Carolin Bruzik (Warehouse Supervisor) | | **Time** 5 min |
|  | |  |
| To display the material inventory value, use in the *Warehouse Management* area on the *Issue from Storage* page in the *Warehouse Supervisor* role the app *Display Warehouse Stock.* | | Fiori App |
|  | |  |
| In the *Display Warehouse Stocks of Material* screen, enter **PRTR2###** as Material(remember to replace ### with your number) and **SD00** as Plant. Ensure that all other search criteria fields are blank and click on . | | PRTR2###  SD00 |
|  | |  |
| As you can see the values, associated with the material in San Diego, has been decreased. So 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  to return to the SAP Fiori Launchpad. | |  |
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|  | 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** Thewarehouse 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. They are still available in the Distribution Center in San Diego, so the delivery of the wholesale sales order can be managed by the new warehouse management system.  The customer VeloDOM from Magdeburg (Germany) 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. | | |
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