Production Planning and Execution (PP) Case Study

This case study explains an integrated production planning and execution process in detail and thus fosters a thorough understanding of each process step and underlying SAP functionality.

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| Product  S/4HANA 1709  Global Bike  GUI 7.50  Level  Undergraduate  Graduate  Beginner  Focus  Production Planning and Execution  Authors  Bret Wagner  Stefan Weidner  Version  3.2  Last Update  May 2018 | MOTIVATION  The data entry requirements in the production planning exercises (PP 1 through PP 6) were minimized because much of the data already existed in the SAP system. This stored data, known as master data, simplifies the processing of business transactions. Examples for this were material master data, bills of materials, and routings.  In this case study, we will create consumption values for a finished product to plan and process a complete manufacturing cycle. |  | PREREQUISITES  Before you use this case study, you should be familiar with navigation in the SAP system.  Furthermore, it is mandatory to review the note GUI 7.50 Configuration. Your lecturer got this documentation together with other lecturer notes. If you do like to use the old GUI settings, please use the S/4HANA documents for SAP GUI 7.40  In order to successfully work through this case study, it is not necessary to have finished the PP exercises (PP 1 through PP 6). However, it is recommended.  NOTES  This case study uses the Global Bike (GBI) data set, which has exclusively been created for SAP UA global curricula. |

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|  | Process Overview | |
| **Learning Objective** Understand and perform a manufacturing process cycle.  **Scenario** In order to experience a complete manufacturing process you will take on different roles within the GBI company, e.g. production supervisor, shop floor worker and plant manager. Overall, you will be working in the Materials Management (MM) and the Production Planning and Execution (PP) departments.  **Employees involved** Jun Lee (Production Supervisor)  Hiro Abe (Plant Manager Dallas)  Lars Iseler (Production Order Worker)  Susanne Castro (Receiving Clerk)  Sanjay Datar (Warehouse Employee)  Michael Brauer (Shop Floor Worker 4)  Jamie Shamblin (Cost Accountant) | | **Time** 140 min |
|  | | |
| Before you can start forecasting demand for your touring bike product group, changes in the material master record of the bikes needs to be maintained.  Afterwards you will create a 12-month sales and operations plan (SOP) for your product group, receive the production relevant goods from the warehouse storage location and issue them to the production order.  To conclude rthe process, the production is confirmed as complete, the finished goods are received into the warehouse and costs assigned to the production order are analyzed. | | |
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| Table of Contents  [Process Overview 2](#_Toc514756889)  [Step 1: Change Material Master Record 4](#_Toc514756890)  [Step 2: Change Routing 8](#_Toc514756891)  [Step 3: Display Product Group 11](#_Toc514756892)  [Step 4: Create Sales and Operations Plan 14](#_Toc514756893)  [Step 5: Transfer SOP to Demand Management 19](#_Toc514756894)  [Step 6: Review Demand Management 22](#_Toc514756895)  [Step 7: Run MPS with MRP 24](#_Toc514756896)  [Step 8: Review Stock/Requirements List 27](#_Toc514756897)  [Step 9: Convert Planned Order into Production Order 30](#_Toc514756898)  [Step 10: Receive Goods in Inventory 32](#_Toc514756899)  [Step 11: Issue Goods to Production Order 36](#_Toc514756900)  [Step 12: Review Production Order Status 38](#_Toc514756901)  [Step 13: Confirm Production Completion 40](#_Toc514756902)  [Step 14: Receive Goods from Production Order 42](#_Toc514756903)  [Step 15: Review Costs Assigned to Production Order 44](#_Toc514756904)  [Step 16: Settle Costs of Production Order 45](#_Toc514756905)  [PP Challenge 49](#_Toc514756906) | | |

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|  | Step 1: Change Material Master Record | |
| **Task** Prepare a material master record for Demand Planning.  **Short Description** In order to plan GBI’s deluxe touring bikes (black, silver and red) prepare their material master records by changing the MRP 3 and Forecast view.  **Name (Position)** Jun Lee (Production Supervisor) | | **Time** 20 min |
|  | |  |
| To change a material’s view, follow the menu path:  Logistics ► Production ► Master Data ► Material Master ► Material ► Change ► Immediately | | Menu path |
| In the Material field, find and select your red Deluxe Touring bike first. | |  |
| If you do not remember its material number, position your cursor in the Material field and click on the search icon  or press **F4**. Make sure you are on the *Material by Material Type* tab. Select Material Type **Finished Product** (FERT) and enter **\*###** in the Material field. Remember to replace ### by your three-digit number given by your instructor, e.g. \*005 if your number is 005. Then, press Enter and select the red Deluxe Touring bike with a double click. | | F4  Finished Product  \*### |
| When your material number (**DXTR3###**) is entered in the Material field, click on  or press Enter. | | DXTR3### |
| On the following pop up, select **MRP 3** and **Forecasting.** Then, press Enter or click on . | | MRP3  Forecast |
|  | |  |
| Enter in the following pop up as Plant **DL00** (Dallas) and as Stor. Location **FG00** (Finished Goods). Then click on Enter or on | | DL00  FG00 |
|  | |  |
| In the *MRP3* tab, enter Strategy group **40** (Planning with final assembly), Consumption mode **1** (Backward consumption only) and Bwd consumption per. **30**. Press Enter to continue to the *Forecasting* tab. | | 40  1  30 |
|  | |  |
| If the following warning message shows up, press Enter again. | |  |
|  | |  |
| On the *Forecasting* tab, select Initialization pds **12**, uncheck **Reset automatically**, check **Param.optimization**, select Optimization level **F** (Fine), Alpha factor **0,20**, Beta factor **0,10**, Gamma factor **0,30**, and Delta factor **0,30**.  Compare your entries with the screen capture shown below. | | 12  Reset automatically  Param.optimization  F  0.20  0.10  0.30  0.30 |
|  | |  |
| Historic consumption values already have been entered into the GBI system. You can view them on the *Forecasting* tab, select . If you do not see the Total consumption column, press on . Within the table you will see the Total Consumption for the periods 04.2010 to 03.2014. These values form the base for later forecasts within this case study.  Please note that within a productive system these values would have been updated based on the goods moved out of the warehouse.  Click on to return to the overview. | |  |
| Click on  to save your entries for the red bike. | |  |
| Repeat the same procedure for the silver and the black deluxe touring bike material master. Start with the silver bike (**DXTR2###**), then modify the black bike (**DXTR1###**). | | DXTR2###  DXTR1### |
| Click on  to return to the SAP Easy Access screen. | |  |
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|  | Step 2: Change Routing | |
| **Task** Change a routing for a finished good.  **Short Description** Change the routing for your red Deluxe Touring bike.  **Name (Position)** Jun Lee (Production Supervisor) | | **Time** 15 min |
|  | |  |
| After the operational steps are defined, the components that make up the bikes must be allocated to the individual operations. This is a progressive process where each operation builds off the materials that were used in production during a previous operations. | | Component allocation |
| To change a routing, follow the menu path:  Logistics ► Production ► Master Data ► Routings ► Routings ► Standard Routings ► Change | | Menu path |
| Enter the material number for your red Deluxe Touring bike (**DXTR3###**). In the Plant field, enter GBI’s Dallas plant number (**DL00**). Please ensure that the Group field is empty. Then, press Enter or click on . | | DXTR3###  DL00 |
|  | |  |
| Choose  and select the materials **TRFR3###** and **TRSK1####** and then choose | | TRFR3###  TRSK1### |
|  | |  |
| In the following pop up, click .Choose operation **0020** and press Enter. Back on the Material Component  Overview screen, you see that now both components have been assigned to operation 0020. | | 0020 |
|  | |  |
| Repeat the same process for the other components and assign them to operations as shown below. | |  |
| |  |  | | --- | --- | | **Component** | **Operation** | | TRHB1### (touring handle bar) | 0030 | | TRWA1### (touring aluminum wheel assembly) | 0040 | | DGAM1### (derailleur gear assembly) | 0040 | | CHAN1### (chain) | 0050 | | BRKT1### (brake kit) | 0060 | | PEDL1### (pedal assembly) | 0070 | | WDOC1### (warranty document) | 0100 | | PCKG1### (packaging) | 0100 | | | TRHB1###  TRWA1###  DGAM1###  CHAN1###  BRKT1###  PEDL1###  WDOC1###  PCKG1### |
|  | |  |
| Save your entries with . | |  |
|  | |  |
| Click on  to go back to the SAP Easy Access Menu. | |  |
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|  | Step 3: Display Product Group | |
| **Task** Display a product group.  **Short Description** Display the product group (product family) for all your Deluxe Touring bikes.  **Name (Position)** Jun Lee (Production Supervisor) | | **Time** 5 min |
|  | |  |
| A product group (product family) supports high-level planning. This way, it is not necessary to delve into the minutia of creating planning forecasts for every material in the company. | | Product group |
|  | |  |
| To display the deluxe touring bike product group, follow the menu path:  Logistics ► Production ► SOP ► Product Group ► Display | | Menu path |
| In the *Display Product Group: Initial Screen*, in the Product group field find and select your group for deluxe touring bikes. In order to do so, press the search icon  (or pressed F4), enter **###\*** in the Material description field. Remember to replace ### with your three-digit number, e.g. enter 009\* if your number is 009. Then, press Enter or click on  to display the search results. You should see ten product groups already defined for your set of material master data (compare with the screen shown below). | | ###\* |
|  | |  |
| Double-click on the line for deluxe touring bicycles to select the group. | |  |
|  | |  |
| Now that the correct product group (**PG-DXTR###**) is filled in, enter as Plant **DL00**. Then, press Enter to display the product group details. | | PG-DXTR###  DL00 |
|  | |  |
| On this screen you can see that this product group defines proportions for three different bikes: the black, silver and red deluxe touring bike. For the black bike a share of 40% will be considered and 30% for the silver and the red bikes each. | |  |
|  | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
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|  | Step 4: Create Sales and Operations Plan | |
| **Task** Create a sales and operations plan for a product group.  **Short Description** Create a 12-month sales and operations plan (SOP) for your product group.  **Name (Position)** Jun Lee (Production Supervisor) | | **Time** 20 min |
|  | |  |
| A sales and operations plan (SOP) is a planning tool used to consolidate data for forecasting future sales and production levels as well as the methods needed to meet those requirements. In this task, our SOP will be based on historical consumption values taken from a fixed period. This is in contrast to forecasting within a real-life system which would base the prediction on previous periods and their respective consumption. | | Sales and operations plan |
|  | |  |
| To create an SOP, follow the menu path:  Logistics ► Production ► SOP ► Planning ► For Product Group ► Change | | Menu path |
| Make sure that Product group **PG-DXTR###** and Plant **DL00** are entered. Then, select **.**  **Record the version number:** | | PG-DXTR###  DL00 |
| In the system menu, select:  More ► Edit ► Create sales plan ► Forecast… | | Menu bar |
| Select **Period intervals**, Forecast from **current period/current year** to **previous period/next year**, Historic Data from **04/2010** to **03/2014**, Forecast execution **Aut. model selection**. Compare your screen with the one below before clicking on . | | Period intervals  current period/current year  previous period/next year  04/2010  03/2014  Aut. model selection |
|  | |  |
| If needed, press Enter and continue through warning messages. | |  |
| In the next pop up you will see, that the system selected *Trend and season*. Click on . | |  |
| You can see that the system tested and found Seasonal and Trend tendencies in the past consumption data and has applied a Seasonal Trend Model. | |  |
| Click on (Copy and Save). The sales forecast is copied into your Sales and Operations Plan. | |  |
|  | |  |
| As Target day’s supply enter **5** for each forecasted period. | | 5 |
|  | |  |
| **In a production plan, you plan the quantities you need to produce in order to meet your sales plan. The system then calculates stock levels and days’ supply for each period on the basis of the sales and production quantities and any target data. There are several different planning strategies available which differ in the production values and the stock levels proposed.**  **As the SOP is high-level planning, discrete production values are not necessary. The SAP system calculates discrete numbers once the SOP is transferred to the Demand Management.** | |  |
| In the menu bar, select:  More ► Edit ► Create product plan ► Synchronous to sales  Note the change in the Production and in the Stock level lines. The production plan is created to match the sales forecast. | | Menu bar |
|  | |  |
| In the menu bar, select  More ► Edit ► Create product plan ► Target day’s supply  Note the impact on the production plan and stock levels. Production levels are generated to match the sales plus produce enough to put into stock to meet the target days of supply specifications. | | Menu bar |
| Review the Planning Table (your numbers may be different). | |  |
|  | |  |
| **Click on**  **to review a graphic representation of your planning table.** | |  |
| **Note Although the screen displays integer production values, the SAP system calculates with decimal accuracy. You can display the decimal places by highlighting a row and pressing F8 and enter the number of decimal places required. Then (re)create the production plan.** | |  |
|  | |  |
| You may click on  to display a legend for this graphic. | |  |
|  | |  |
| Close the pop ups and save with . | |  |
|  | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
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|  | Step 5: Transfer SOP to Demand Management | |
| **Task** Transfer SOP to Demand Management.  **Short Description** Transfer the Sales and Operations Plan to Demand Management.  **Name (Position)** Jun Lee (Production Supervisor) | | **Time** 10 min |
|  | |  |
| Demand Management is the tool used to disaggregate planning data from high-level plans down to the detailed planning level. For this task, planning for the Deluxe Touring Product Group will be broken down into the individual components that belong to this group. | | Demand Management |
|  | |  |
| To transfer the SOP to Demand Management, follow the menu path:  Logistics ► Production ► SOP ► Disaggregation ► Transfer PG to Demand Management | | Menu path |
| Enter Product group **PG-DXTR###**, Plant **DL00**, and the version saved in the previous task (**A00**). | | PG-DXTR###  DL00  A00 |
| Select **Prod.plan for mat. or PG members as proportion of PG** and **Active**. Then, deselect the **Invisible Transfer** indicator to present the disaggregation results on another screen allowing the planner to modify the results before saving them manually to Demand Management. | | Prod.plan for mat. or PG members as prop. of PG  Active  Invisible Transfer |
| Select  and e**xamine the Planned Independent Requirements generated for DXTR1###.** | |  |
|  | |  |
| Then, click on  to save. | |  |
|  | |  |
| Examine the Planned Independent Requirements generated for **DXTR2###** and save them with . | | DXTR2### |
|  | |  |
| Finally, examine the requirements for **DXTR3###** and save them with . | | DXTR3### |
|  | |  |
| **Note** DXTR1### makes up 40%, DXTR2### makes up 30% and DXTR3### another 30% of the production plan created in your Sales and Operations Plan. How is this derived? | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
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|  | Step 6: Review Demand Management | |
| **Task** Review the requirements for a product group.  **Short Description** Review the requirements for the product group to ensure that there are production requirements for the individual production items.  **Name (Position)** Hiro Abe (Plant Manager Dallas) | | **Time** 10 min |
|  | |  |
| To review planned requirements, follow the menu path:  Logistics ► Production ► Production Planning ► Demand Management ► Planned Independent Requirements ► Display | | Menu path |
| Select the **Product group** indicator, enter Product group **PG-DXTR###**, Plant **DL00**, and select . | | Product group  PG-DXTR###  DL00 |
|  | |  |
| On the *Table* tab, review the Planned Independent Requirements for the Deluxe Touring bike product group by material. | |  |
|  | |  |
| On the *Schedule Lines* tab, review the requirement dates, planned quantities, values, and total planned quantities. | |  |
|  | |  |
| Select  to move to the next material. | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
|  | |  |

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|  | Step 7: Run MPS with MRP | |
| **Task** Run Master Production Scheduling (MPS).  **Short Description** Run Master Production Scheduling (MPS) to generate a series of planned orders that satisfy the requirements from SOP and demand management. Concurrently with MPS, the MRP materials will be processed leading to the generation of planned orders for dependent requirements that have been created by the BOM explosion process.  **Name (Position)** Jun Lee (Production Supervisor) | | **Time** 10 min |
|  | |  |
| To run Master Production Scheduling, follow the menu path:  Logistics ► Production ► Production Planning ► MPS ► MPS ► Single-Item, Multi-Level | | Menu path |
| Enter your material **DXTR3###**, Plant **DL00**, Processing key **NETCH**, select **2** (Purchase requisition in opening period), **3** (Schedule lines), **1** (MRP list), **1** (Adapt planning data (normal mode)), and **1** (Determination of Basic Dates for Planned). Then, select **Display material list**.,  Press Enter. | | DXTR3###, DL00  NETCH  2  3  1  1  1  Display material list |
|  | |  |
| A warning message will appear asking you to check input parameters. Press Enter to confirm and bypass the warning message. | |  |
| Review the planning details from the List Display. | |  |
|  | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
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|  | Step 8: Review Stock/Requirements List | |
| **Task** Review the Stock/Requirements List.  **Short Description** Review the Stock/Requirements List for your deluxe touring bike.  **Name (Position)** Lars Iseler (Production Order Worker) | | **Time** 10 min |
|  | |  |
| The Stock/Requirements List is a list which dynamically changes whenever a transaction occurs using the given material. Display and review the Stock/Requirements List for all materials of the red deluxe touring bike on hand and the demand that exists against these products. The report shows that there is no stock and therefore nothing is available for use at this time. | | Stock/Requirements List |
|  | |  |
| To review the Stock/Requirements List, follow the menu path:  Logistics ► Production ► Production Planning ► MPS ► Evaluations ► Stock/Reqmts List | | Menu path |
| On the *Individual access* tab, enter Material **DXTR3###** and Plant **DL00** and click on . | | DXTR3###  DL00 |
|  | |  |
| Choose  (Switch to Period Totals). This will allow you to see the planned independent requirements, planned receipts, and ATP quantities based on time; days, weeks, or months. | |  |
|  | |  |
| Select  to go back to the individual lines. | |  |
|  | |  |
| To view the details of the first planned order (PldOrd), select  (Element Details). | |  |
| Select  (Pegged Requirements). | |  |
|  | |  |
| You can see that this planned order is to fulfill our Safety Stock and the first planned independent requirement that was created when we disaggregated our SOP. | |  |
|  | |  |
| Click on  twice to return to the SAP Easy Access screen. | |  |
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|  | Step 9: Convert Planned Order into Production Order | |
| **Task** Convert a planned order into a production order.  **Short Description** Convert a planned order generated in the MPS/MRP run to a production order. The stock requirements list displays the suggested planned orders from the MPS run.  **Name (Position)** Lars Iseler (Production Order Worker) | | **Time** 10 min |
|  | |  |
| To convert planned orders into production orders, follow the menu path:  Logistics ► Production ► MRP ► Evaluations ► Stock/ Requirements List | | Menu path |
| Enter Material **DXTR3###**, Plant **DL00**, and click on  or press Enter. Then, double-click on the second planned order. | | DXTR3###  DL00 |
|  | |  |
| In the Additional Data screen, click on  (Convert planned order to production order). | |  |
|  | |  |
| **Note** At this point, please note down the total quantity in your production order. You will need it later when confirming your order. | | Total quantity |
|  | |  |
| Determine the status of your order by clicking on . What does this mean? \_\_\_\_\_\_ | |  |
| **Note** When you converted the planned order to a production order scheduling takes place, an availability check was automatically carried out and a reservation was placed on the materials specified within the bill of materials. The order was also automatically released when the production order was created. | |  |
| Click on  to go back to the *Production order Create: Header* screen and  your production order. | |  |
| **Note** When you save the production order the system will automatically calculate the planned costs for the production order and the production order is given a number.    Make sure you record your production order number. | | Production order number |
| Select  to refresh the Stock/Requirements List. In the MRP Element column the planned order *PldOrd* that you selected should now have changed into a production order *PrdOrd*. | |  |
|  | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
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|  | Step 10: Receive Goods in Inventory | |
| **Task** Receive goods in the Dallas plant.  **Short Description** Receive enough goods in the Dallas storage locations to start the production process.  **Name (Position)** Susanne Castro (Receiving Clerk) | | **Time** 10 min |
|  | |  |
| Usually, at this point the purchasing department in Dallas would take over and procure enough raw materials from vendors to fill the inventory so that the production process can be initiated. In this case study, we are bypassing this procurement process (this process is explained in the MM unit in detail). Because the inventory for all DXTR3### components is empty, we will assume that we find 500 pieces each in the storage location. | | Goods receipt |
|  | |  |
| To receive goods in the inventory, follow the menu path:  Logistics ► Materials Management ► Inventory Management ► Goods Movements ► Goods Movement | | Menu path |
| Make sure that *Goods Receipt* and *Other* is selected in the drop-down menu. | |  |
|  | |  |
| Enter Movement Type **561** (Receipt per initial entry of stock balances into unr.-use), **today** as Document and Posting Date. Then, press Enter. If necessary, confirm the information pop-up. | | today  561 |
| In the *Goods Receipt Other* screen, enter the following data. Each one of these ten materials are components that you later on need in your production order. Note that all materials are stored in the raw materials storage location in DL00 (Dallas) except the touring wheel assembly (first component in the list) which is a semi-finished good. | |  |
| If the material field is shown grayed click on  to minimize the *Detail data*. | |  |
| |  |  |  | | --- | --- | --- | | **Material** | **Quantity** | **SLoc** | | TRWA1### (Touring Aluminum Wheel Assembly) | 500 | SF00 | | TRFR3### (Touring Frame-Red) | 500 | RM00 | | DGAM1### (Derailleur Gear Assembly) | 500 | RM00 | | TRSK1### (Touring Seat Kit) | 500 | RM00 | | TRHB1### (Touring Handle Bar) | 500 | RM00 | | PEDL1### (Pedal Assembly) | 500 | RM00 | | CHAN1### (Chain) | 500 | RM00 | | BRKT1### (Brake Kit) | 500 | RM00 | | WDOC1### (Warranty Document) | 500 | RM00 | | PCKG1### (Packaging) | 500 | RM00 | | | TRWA1###  TRFR3###  DGAM1###  TRSK1###  TRHB1###  PEDL1###  CHAN1###  BRKT1###  WDOC1###  PCKG1### |
| Press Enter. | |  |
| If you get one of the following two pop ups, in both cases double click on *DL00*. | |  |
|  | |  |
|  | |  |
| Then compare your screen with the screenshot shown below. Remember that your material numbers are different. | |  |
|  | |  |
| Save your goods receipt with  and record the material document number. | | Material document number |
|  | |  |
| Then, click on  to return to the SAP Easy Access screen. | |  |
|  | |  |

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|  | Step 11: Issue Goods to Production Order | |
| **Task** Issue goods to a production order.  **Short Description** Now that all necessary components are on stock issue them to your production order in precise quantity.  **Name (Position)** Sanjay Datar (Warehouse Employee) | | **Time** 10 min |
|  | |  |
| The goods issue process is fully defined in the production order, BOM, and routing. The quantities and the materials are reserved for this specific production order, they will be withdrawn with reference to the order number and will be used to assign actual costs to the production order for managerial accounting purposes. | | Goods issue |
|  | |  |
| To issue goods to a production order, follow the menu path:  Logistics ► Production ► Shop Floor Control ► Goods Movements ► Goods Issue / Goods Receipt  This should produce the following screen. | | Menu path |
| Make surethat *Goods Issue* and *Order* is selected. | |  |
|  | |  |
| Enter Movement Type **261** (Consumption for order from warehouse), **today** as Document Date and Posting Date. | | today  today  261 |
| Enter your **production order number** from two tasks back. Then choose Enter. | | Production order number |
| If you have not written down your production order number you can find it in the system. In order to do so, in the Order field press **F4** or click on the search icon . In the *Order Number (1)* screen, use the icon on the far right  to display a list of all tabs. Please select the *Production orders using the info system* tab. On this tab, enter your material **DXTR3###** in the Material field and click on . Double-click on the result row to adopt your production order number into the initial screen. | | F4  DXTR3### |
| Once you have found and entered your production order number, click on Enter to continue. | |  |
| An itemized list will appear. It lists all the materials and their respective quantities that need to be issued to your order. You need to tell the system what Storage Location the materials should be withdrawn from. For the Touring Aluminum Wheel Assembly (TRWA1###), enter **SF00** (Semi-finished goods) and for all other materials **RM00** (Raw materials) in the SLoc fields. Furthermore, flag each item with **OK**. Before pressing Enter compare your screen with the one shown below. Notice that your quantity could be different. | | SF00  RM00  OK |
|  | |  |
| Click on  and record the material document number \_\_\_\_\_\_\_\_\_\_\_\_\_. | | Material document number |
|  | |  |
| Click on the exit icon  to return to the SAP Easy Access screen. | |  |
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|  | Step 12: Review Production Order Status | |
| **Task** Review the production order status.  **Short Description** Review the current production order with respect to the status of the order.  **Name (Position)** Michael Brauer (Shop Floor Worker 4) | | **Time** 10 min |
|  | |  |
| To display the production order, follow the menu path:  Logistics ► Production ► Shop Floor Control ► Order ► Display | | Menu path |
| Enter the number of your **production order number**. | | Production order number |
| If you have not written down your production order number you can find it in the system. In order to do so, in the Order field press **F4** or click on the search icon . In the *Order Number (1)* screen, use the icon on the far right  to display a list of all tabs. Please select the *Production orders using the info system* tab. On this tab, enter your material **DXTR3###** in the Material field and click on . Double-click on the result row to adopt your production order number into the initial screen. | | F4  DXTR3### |
| When your production order number is entered, click on . Note that the order status has changed and review it by clicking on  again. | |  |
|  | |  |
| You did a goods issue to the production order in the last task. Now, you want to review the cost assigned to the order, the material document, and the corresponding accounting document. | |  |
| In order to do so, click on  to go back to the header screen. | |  |
| Then in the system menu select:  More ► Goto ► Costs ► Analysis | | Menu bar |
|  | |  |
| Here you can see the costs that were assigned to the production order from our goods issue. | |  |
| Click on  to go back to the SAP Easy Access menu. | |  |
|  | |  |

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| --- | --- | --- |
|  | Step 13: Confirm Production Completion | |
| **Task** Confirm production order completion.  **Short Description** Confirm completion for your production order.  **Name (Position)** Michael Brauer (Shop Floor Worker 4) | | **Time** 10 min |
|  | |  |
| When the assembly has been completed for the current production order, we need to confirm that certain procedures and activities have been completed and record the quantity of the end product that has been manufactured. | | Production completion |
| To confirm production completion, follow the menu path:  Logistics ► Production ► Shop Floor Control ► Confirmation ► Enter ► For Order | | Menu path |
| Enter your **production order** **number** and click on. | | Production order number |
| Select **Final Confirm.** and **Clear Reservation**. In the Yield Quantity field, enter the **number** of bikes you were supposed to produce for this order. Remember that your amount might be different from the screen below. | | Final Confirm.  Clear Reservation  Amount |
|  | |  |
| Then, change the Start Execution to **1 hour earlier** than the default time. | | 1 hour earlier |
|  | |  |
| Save your entries with . | |  |
|  | |  |
| **Note** When the confirmation is saved, labor costs for the order are calculated automatically. The quantity yield also establishes the parameters for the goods receipt into Inventory. | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
|  | |  |

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| --- | --- | --- |
|  | Step 14: Receive Goods from Production Order | |
| **Task** Post a goods receipt from production order.  **Short Description** Post a goods receipt from your production order.  **Name (Position)** Susanne Castro (Receiving Clerk) | | **Time** 15 min |
|  | |  |
| Receive the completed products into finished goods inventory. Check the quantity proposed against the quantity specified in the production order and the quantity specified during confirmation. If there are any discrepancies, the system will decide if an error or warning message should be generated depending upon the deviation identified. | | Goods receipt |
|  | |  |
| To post a goods receipt, follow the menu path:  Logistics ► Production ► Shop Floor Control ► Goods Movements ► Goods Issue / Goods Receipt  This produces the following screen. | | Menu path |
| Select *Goods Receipt* and *Order* in the drop-down menu.  Enter Movement Type **101** (Goods receipt for order to warehouse) and your **production order number**.  Choose Enter. | | 101  Production order number |
|  | |  |
| Select **OK** for your item. Compare your screen with the screenshot below. | | OK |
| In the overview screen, review the item to ensure that all the data is correct.   * Movement Type 🡪 101 (goods receipt into Inventory) * Storage Location 🡪 FG00 (Inventory) * Quantity 🡪 should equal the amount that you confirmed in the previous task | |  |
|  | |  |
| Click on  to post the goods receipt. When you save this material document the actual value of the material produced was entered into the production order. | |  |
|  | |  |
| Record the material document number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | Material document number |
| Click on  to return to the SAP Easy Access screen. | |  |
|  | |  |

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|  | Step 15: Review Costs Assigned to Production Order | |
| **Task** Review costs assigned to your production order.  **Short Description** Display and review the costs that have been assigned to your production order.  **Name (Position)** Jamie Shamblin (Cost Accountant) | | **Time** 5 min |
|  | |  |
| To display costs assigned, follow the menu path:  Logistics ► Production ► Shop Floor Control ► Order ► Display | | Menu path |
| Enter your **production order number** and click on . | | Production order number |
| In the system menu, select:  More ► Goto ► Costs ► Analysis | | Menu bar |
|  | |  |
| Now that the finished products have been received in the Inventory, the Manufacturing Output Settlement Variance has been added. How is this figure calculated by the system? | |  |
| Click on  to return to the SAP Easy Access screen. | |  |
|  | |  |

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| --- | --- | --- |
|  | Step 16: Settle Costs of Production Order | |
| **Task** Settle costs of your production order.  **Short Description** Settle the costs of your production order. The costs are temporarily captured in the production order and they need to be assigned to an appropriate cost object. Compare the actual costs to the planned costs to identify any deviations or potential problems in this regard.  **Name (Position)** Jamie Shamblin (Cost Accountant) | | **Time** 20 min |
|  | |  |
| To settle costs of a production order, follow the menu path:  Logistics ► Production ► Shop Floor Control ► Period-End Closing ► Settlement ► Individual Processing | | Menu path |
| If you have to input the Controlling Area, enter **NA00**, and click on . | | NA00 |
| Enter your **production order number**, the **current month** as Settlement period (e.g. 007 for July), the **current month** as Posting period, and the **current year** as Fiscal year. Make sure that **Test Run** is selected. | | Production order number  current month  current month  current year  Test Run |
|  | |  |
| Then, click on . Confirm any occurring pop-up. | |  |
|  | |  |
| Click on . | |  |
| In the system menu, choose:  More ► Environments ► Report | | Menu bar |
| Then, double-click on **Actual/Plan/Variance** to select the report. | | Actual/Plan/Variance |
|  | |  |
|  | |  |
| Click on  to go back. Then, select  and click on  twice. | | Yes |
| Deselect **Test Run** and execute again with . Click on and select . Choose report **Actual/Plan/Variance**. | | Test Run  Actual/Plan/Variance |
|  | |  |
| **Note** The manufacturing output settlement is higher than the consumption expenses for raw materials and semi-finished goods? Review and explain the expenses and the settlements of your production order in detail. How is the balance derived? | |  |
| Click on , choose  and click on  again to return to the SAP Easy Access screen. | | Yes |
|  | |  |

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|  | PP Challenge | | |
| **Learning Objective** Understand and perform an integrated manufacturing process. | | **Time** 60 min | |
| **Motivation** After you have successfully worked through the *Production Planning and Execution* case study you should be able to solve the following challenge on your own.  **Scenario** In this challenge you should create sales and operations plan (SOP) for the product group (product family) Mountainbikes. Take into consideration that the materials of the product group have to be assigned to the strategy group. Therefore, enter manually the following sales figures:   |  |  | | --- | --- | | **Period** | **Sales (volume)** | | Current month + 2 | 150 | | Current month + 3 | 175 | | Current month + 4 | 200 | | Current month + 5 | 85 | | Current month + 6 | 90 | | Current month + 7 | 115 |   In addition, you must post the correct goods for Material ORMN1### in the storage location in order to be able to produce and settle costs afterwards.  **Task Information** Since this task is based on the *Production Planning and Execution* case study you can use it as guidance. However, it is recommended that you solve it without any help in order to test your acquired knowledge. | | | |
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