

# Production Planning and Execution (PP)

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.

#### **Product**

S/4HANA 1809 Global Bike

Fiori 2.0

#### Level

Undergraduate Graduate Beginner

#### **Focus**

Production Planning and Execution

#### **Authors**

Bret Wagner Stefan Weidner

#### Version

3.3

#### **Last Update**

May 2019

#### **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.

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 data set, which has exclusively been created for SAP UA global curricula.



# Process Overview

Learning Objective Understand and perform a manufacturing process cycle.

Time 140 min

**Scenario** In order to experience a complete manufacturing process you will take on different roles within the Global Bike Group, 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.

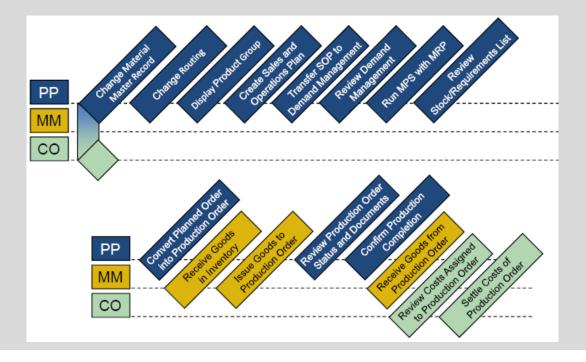
**Employees involved** Jun Lee (Production Supervisor)

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)

Before you can start forecasting demand for your touring bike product group, changes in the material master record of the bikes need 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 the 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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## Step 1: Change Material Master Record

Task Prepare a material master record for Demand Planning.

Time 20 min

**Short Description** In order to plan Global Bike'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)

To change a material's view, use the App Change Material.

Fiori App

Change Material

In the Material field, find and select your red Deluxe Touring bike **DXTR3###** first.

DXTR3###

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 \*###

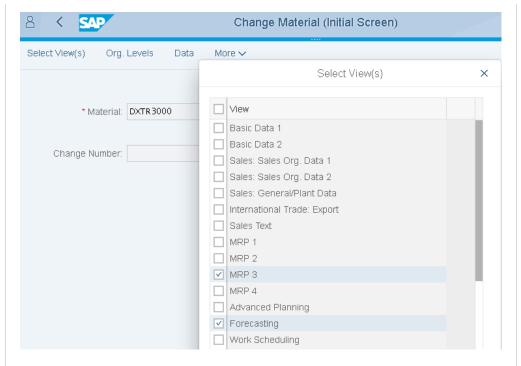
When your material number (**DXTR3**###) is entered in the Material field, click on or press Enter.

DXTR3###

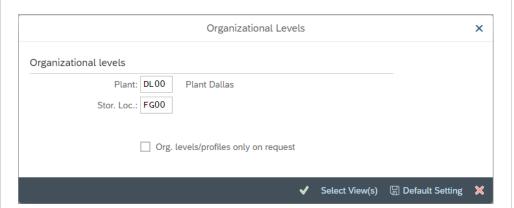
On the following screen, select MRP 3 and Forecasting.

MRP 3 Forecast

Then, press Enter or click on



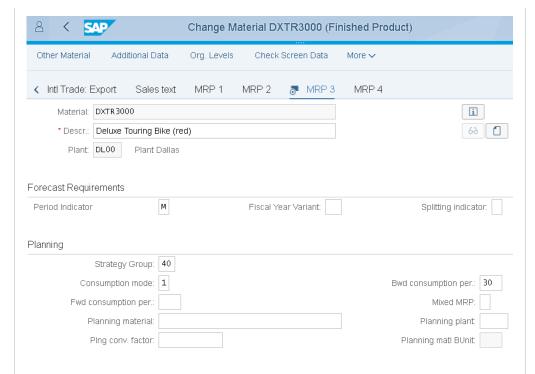
In the following pop up enter the Global Bike manufacturing facility in Dallas **DL00** and its Finished Goods Stor. Location **FG00**. Press Enter or click on ...



In the *MRP 3* tab, enter Strategy group **40** (Planning with final assembly), Consumption mode **1** (Backward consumption only) and Bwd.consumption per. **30**. Then click Enter.

DL00 FG00

> 40 1 30



Press Enter.

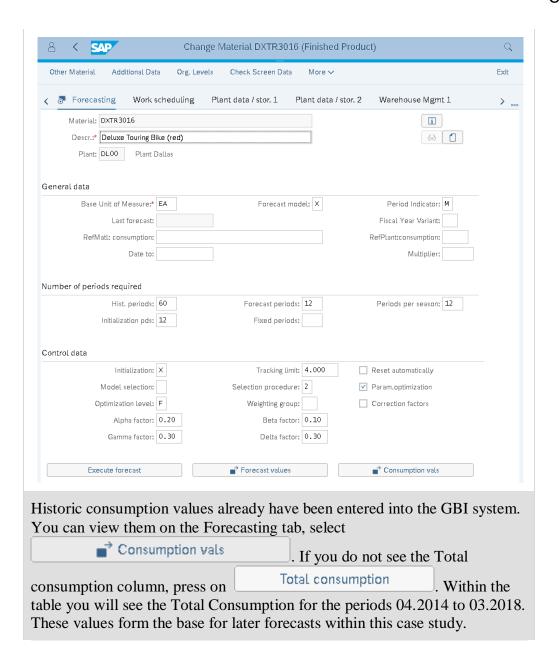
Then, acknowledge the warning message to check the consumption periods.

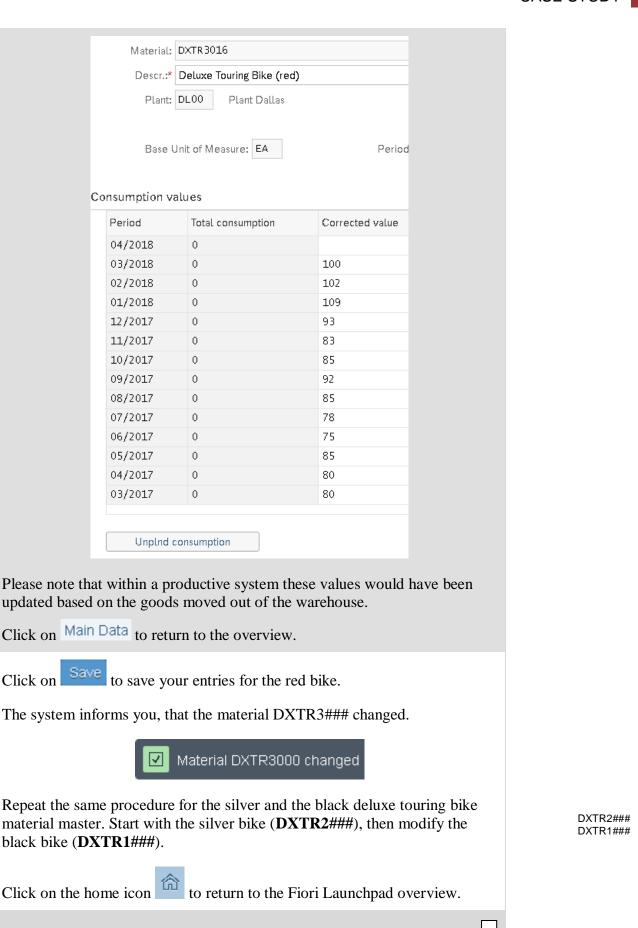
On the *Forecasting* tab, enter Initialization pds **12**, uncheck the checkbox **Reset automatically**, check the checkbox **Param.optimization**, enter Optimization level **F** (Fine), Alpha factor **0.20**, Beta factor **0.10**, Gamma factor **0.30**, and Delta factor **0.30**.

Compare your entries with the screen capture shown below.

Reset automatically
Param.optimization
F
0.20
0.10
0.30

0.30







## Step 2: Change Routing

Task Change a routing for a finished good.

Time 15 min

**Short Description** Change the routing for your red Deluxe Touring bike.

Name (Position) Jun Lee (Production Supervisor)

After the operational steps are laid out, the components must be allocated to the individual operations. This is a progressive process where each operation builds off the materials that entered production in the previous operations.

Component allocation

To change a routing, use the app Change Routing.

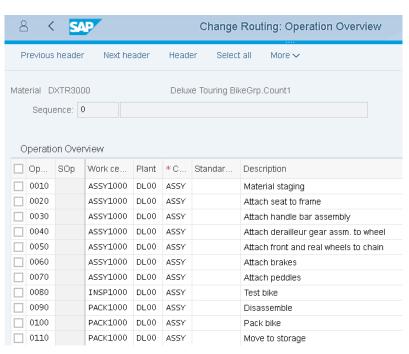
Fiori App



Enter the material number for your red Deluxe Touring Bike (**DXTR3**###). In the Plant field, enter Global Bike's Dallas plant number (**DL00**). Please ensure that the Group field is empty.

DXTR3### DL00

Then, press Enter or click on Continue



**Note** A routing can be defined using the routing group and group counter. Moreover, the routing contains reference to the material whose production it describes, and, in addition to the standard sequence, can contain parallel or alternative sequences. Alongside the standard values, the routing also contains the time elements that are relevant for scheduling operations. Each operation in the routing may contain its own base quantity, to which these time elements may refer.

Choose Allocation and select the red touring frame (**TRFR3**###) as well as the touring seat kit (**TRSK1**###). Afterwards, choose New Assignment.

TRFR3### TRSK1###

lte	Item Overview								
	Р	Le	Path	Ite	Component	Quantity			
		0	0	0010	TRWA1000	2			
<b>~</b>		0	0	0020	TRFR3000	1			
		0	0	0030	DGAM1000	1			
$\checkmark$		0	0	0040	TRSK1000	1			
		0	0	0050	TRHB1000	1			
		0	0	0060	PEDL1000	1			
		0	0	0070	CHAN1000	1			
		0	0	0080	BRKT1000	1			
		0	0	0090	WDOC1000	1			
		0	0	0100	PCKG1000	1			

0020

In the following pop up, click Oper./act. list .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.

Ite	em O	vervie	eW									
	Р	Le	Path	Ite	Component	Quantity	Sort String	U	lt	В	Activity	Seq.
		0	0	0010	TRWA1000	2		EA	L			
		0	0	0020	TRFR3000	1		EA	L		0020	0
		0	0	0030	DGAM1000	1		EA	L			
		0	0	0040	TRSK1000	1		EA	L		0020	0
		0	0	0050	TRHB1000	1		EA	L			
		0	0	0060	PEDL1000	1		EA	L			
		0	0	0070	CHAN1000	1		EA	L			
		0	0	0080	BRKT1000	1		EA	L			
		0	0	0090	WDOC1000	1		EA	L			
		0	0	0100	PCKG1000	1		EA	L			

Repeat the same process for the other components and assign them to operations as shown below.

Co	Component									Operation		
TF	TRHB1### (touring handle bar)								030			
TF	TRWA1### (touring aluminum wheel assembly)								040			
DO	GAM	1### (	deraill	eur gear ass	sembly)			00	040			
CF	HAN1	L### (d	chain)					00	050			
BF	RKT1	### (b	rake k	it)				00	060			
		`		ssembly)				00	070			
				•	nt)			0100				
	WDOC1### (warranty document) PCKG1### (packaging)							0100				
	)vervie						-					
Р	Le	Path	Ite	Component	Quantity	Sort String	U	lt	В	Act		
	0	0	0010	TRWA1000	2		EA	L		004		
	0	0	0020	TRFR3000	1		EA	L		002		
	0	0	0030	DGAM1000	1		EA	L		004		
	0	0	0040	TRSK1000	1		EA	L		002		
	0	0	0050	TRHB1000	1		EA	L		003		
	0	0	0060	PEDL1000	1		EA	L		007		
	0	0	0070	CHAN1000	1		EA	L		005		
	0	0	0080	BRKT1000	1		EA	L		006		
	0	0	0090	WDOC1000	1		EA	L		010		
	0	0	0100	PCKG1000	1		EA	L L		010		

TRHB1###

TRWA1###

DGAM1###

CHAN1###

BRKT1###

PEDL1###

WDOC1###

PCKG1###

Save your entries with Save

Routing was saved with group 50000004 and material DXTR3000.

Click on the home icon to return to the Fiori Launchpad overview.



## Step 3: Display Product Group

Task Display a product group.

Time 5 min

**Short Description** Display the product group (product family) for all your Deluxe Touring bikes.

Name (Position) Jun Lee (Production Supervisor)

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, use the app *Display Product Group*.

Fiori App

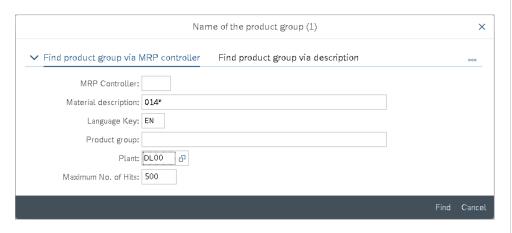


In the Display Product Group: Initial Screen, in the Product group field find and select your group for deluxe touring bikes. In order to do so, press the

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. Enter **DL00** as Plant.

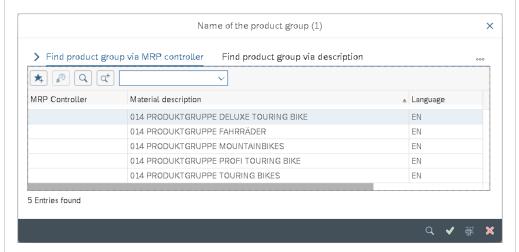
###\*

DL00



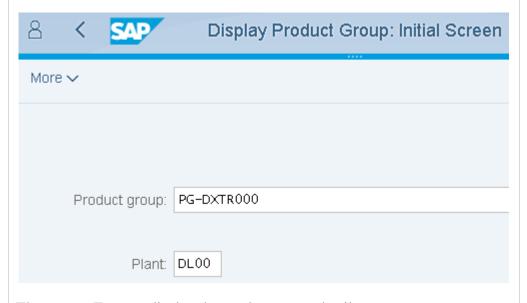
Then, press Enter or click on Find to display the search results.

Compare with the screen shown below. Double-click on the line for deluxe touring bicycles to select the group.



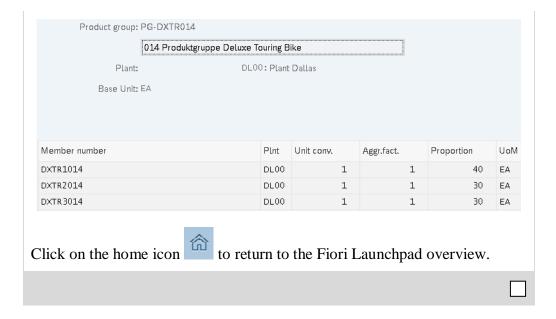
Now that the correct product group (**PG-DXTR**###) is filled in, make sure that Plant **DL00** is entered.

PG-DXTR### DL00



Then, press Enter to display the product group details.

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.





## Step 4: Create Sales and Operations Plan

**Task** Create a sales and operations plan for a product group.

Time 20 min

**Short Description** Create a 12-month sales and operations plan (SOP) for your product group.

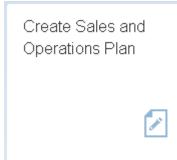
Name (Position) Jun Lee (Production Supervisor)

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

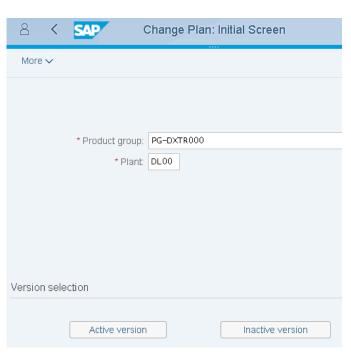
To create an SOP, use the app Create Sales and Operations Plan.

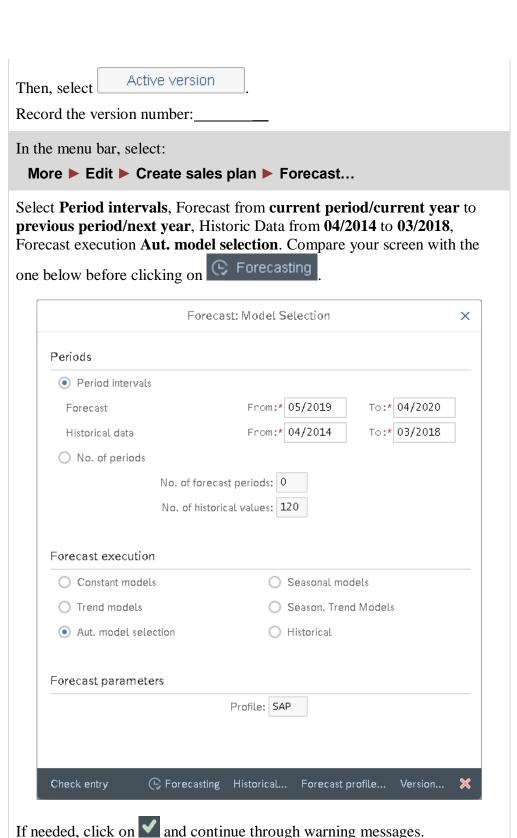
Fiori App



Make sure that Product group **PG-DXTR**### and Plant **DL00** are entered

PG-DXTR### DL00

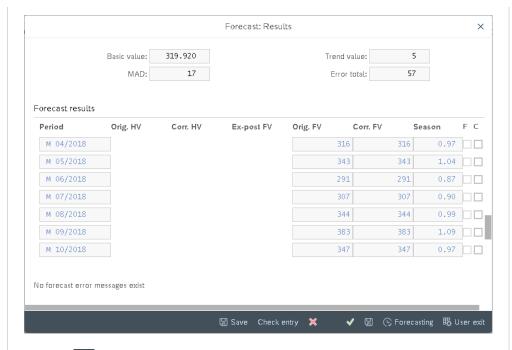




In the next pop-up you can see that the system tested and found Seasonal and Trend tendencies in the past consumption data and has applied a Seasonal Trend Model.

Menu bar

Period intervals current period/current year previous period/next year 04/2014 03/2018 Aut. model selection



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.



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 a 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:

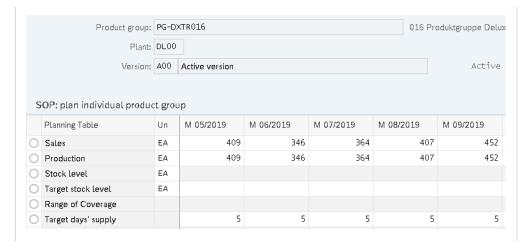
#### Edit ► Create product plan ► Synchronous to sales

Note the change in the Production and in the Stock level lines. The production plan is created to match the sales forecast.

5

Menu bar

Menu bar

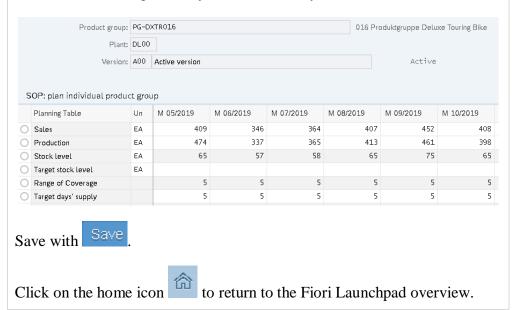


In the system menu, select

#### Edit ► Create productn 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.

Review the Planning Table (your numbers may be different).





## Step 5: Transfer SOP to Demand Management

Task Transfer SOP to Demand Management.

Time 10 min

**Short Description** Transfer the Sales and Operations Plan to Demand Management.

Name (Position) Jun Lee (Production Supervisor)

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, use the app *Transfer SOP to Demand Management – Transfer the Sales and Operations Plan to Demand Management.* 

Fiori App



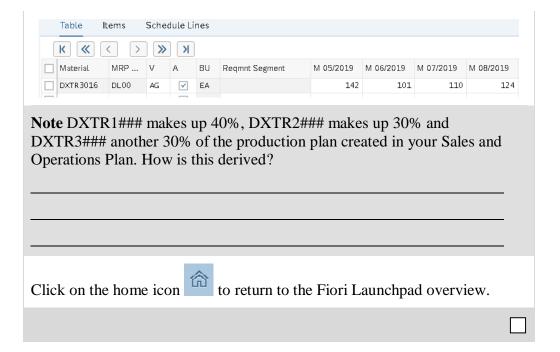
Enter Product group **PG-DXTR**###, Plant **DL00**, and the version saved in the previous task (**A00**).

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

Transfer now More ✓
Product group:* PG-DXTR016
016 Produktgruppe Deluxe Touring Bike
Plant:* DL00
Version: A00
Transfer strategy and period
Sales plan for material or PG members
Sales plan for mat. or PG members as proportion of PG
O Production plan for material or PG members
Prod.plan for mat. or PG members as proportion of PG
From: 05/15/2019 To:
☐ Invisible transfer
ndependent requirement specifications
Requirements type:
Version:
✓ Active
lect Transfer now and examine the Planned Independent Requirements
nerated for DXTR1###.
Table Items Schedule Lines
K « < > » »
Material MRP V A BU Reqmnt Segment M 05/2019 M 06/2019 M 07/2019 M 08/2019
DXTR1016 DL00 AG
Sove
en, click on Save to save.
amine the Planned Independent Requirements generated for DXTR2###
I save them with Save
Table Items Schedule Lines
K   K   K   K   K   K   K   K   K   K
DXTR2016 DL00 AG 🗸 EA 142 101 110 124
nally, examine the requirements for <b>DXTR3###</b> and save them with
ave <sub>.</sub>





## Step 6: Review Demand Management

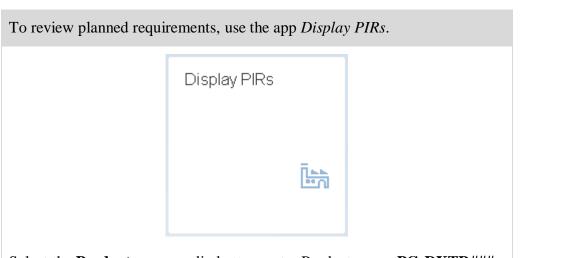
**Task** Review the requirements for a product group.

Time 10 min

Fiori App

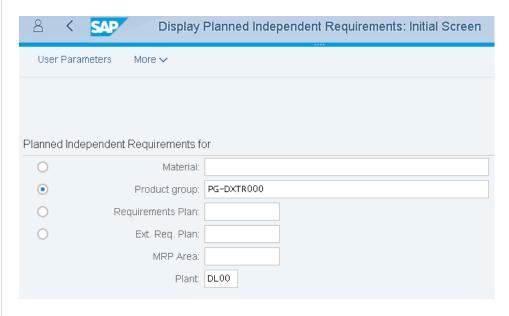
**Short Description** Review the requirements for the product group to ensure that there are production requirements for the individual production items.

Name (Position) Hiro Abe (Plant Manager Dallas)

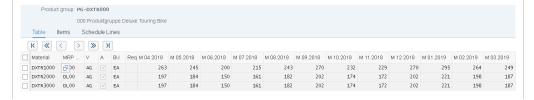


Select the **Product group** radio button, enter Product group **PG-DXTR###**, Plant **DL00**, and select or click Enter.

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 *Sched. lines* tab, review the requirement dates, planned quantities, values, and total planned quantities.

	ole Ite	ms	Schedule Lines							
	Material:	DXTR10	)16							
	Plant:	DL00	Reqmts type:	VSF		Version/active: AG				
Plan Qty: 2,063 EA										
7 P	ReqmtDa	to	Planned qty		Spl.	S	Value / USD			
			r taimed qty	100	Jpr.	J				
M	05/2019			190			139,089.50			
M	06/2019			135			98,826.75			
M	07/2019			146			106,879.30			
M	08/2019			165			120,788.25			
M	09/2019			184			134,697.20			
M	10/2019			159			116,395.95			
M	11/2019			158			115,663.90			
M	12/2019			187			136,893.35			
М	01/2020			205			150,070.25			
М	02/2020			183			133,965.15			
М	03/2020			175			128,108.75			
М	04/2020			176			128,840.80			



### Step 7: Run MPS with MRP

Task Run Master Production Scheduling (MPS).

Time 10 min

**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)

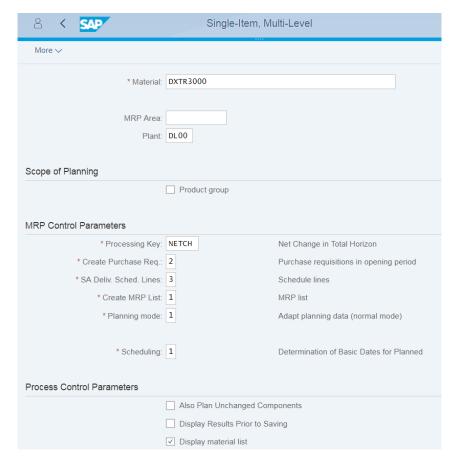
To run Master Production Scheduling, use the apps *Schedule MRP Run – Run MPS with MRP*.

Fiori App



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**.

DXTR3###, DL00 NETCH 2 3 1 1 1 1 Display material list

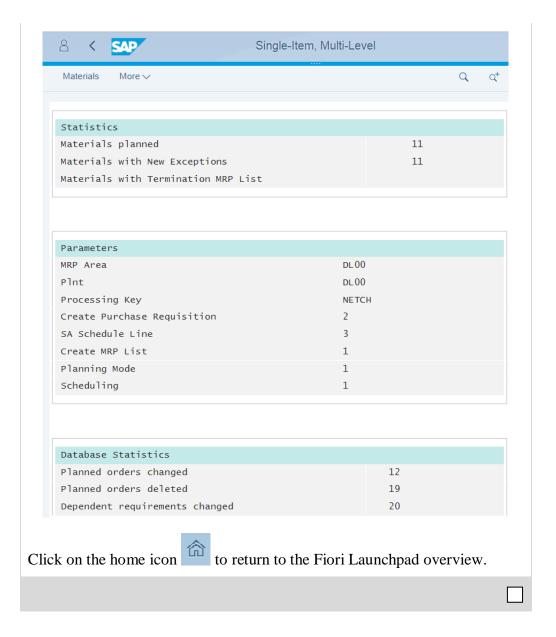


#### Press Enter.

A warning message will appear asking you to check input parameters. Press Enter to confirm and bypass the warning message.

**Note** In MRP, a net requirements calculation is executed in the planning run to determine whether a material shortage exists for a certain material. In addition, stock and fixed receipts that currently exist (for example, purchase orders, production orders, fixed purchase requisitions and planned orders) are compared with the safety stock and requirements. The result of this comparison is the quantity available for planning.

If the quantity available for planning is lower than zero, a material shortage exists. MRP reacts to material shortages by creating new procurement proposals (purchase requisitions and planned orders). The suggested procurement quantity results from the lot-sizing procedure that is set in the material master.





## Step 8: Review Stock/Requirements List

Task Review the Stock/Requirements List.

Time 10 min

**Short Description** Review the Stock/Requirements List for your deluxe touring bike.

Name (Position) Lars Iseler (Production Order Worker)

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, use the SAP Fiori App *Monitor Stock / Requirements List*.

Fiori App

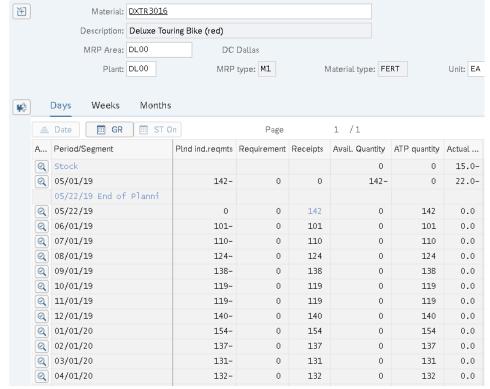


On the Individual access tab, enter Material **DXTR3**### and Plant **DL00** and click on Continue.

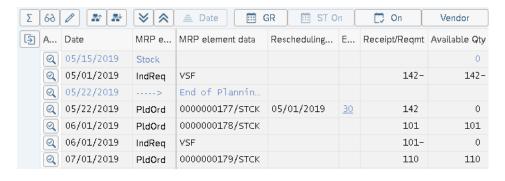
DXTR3### DL00

8 < SAP	Stock/Requirements List: Initial Screen
More 🗸	
Individual access	Collective access
* Material:	DXTR3000
Description:	Deluxe Touring Bike (red)
MRP Area:	
Plant:	DL00 Plant Dallas
With filter:	

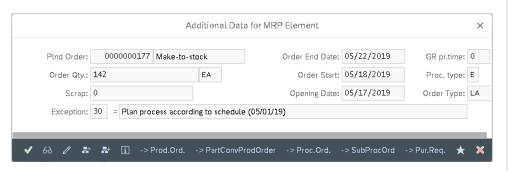
Choose (Switch to Period Totals). This will allow you to see the planned independent requirements, planned receipts, and ATP quantities based on time - days, weeks, or months.

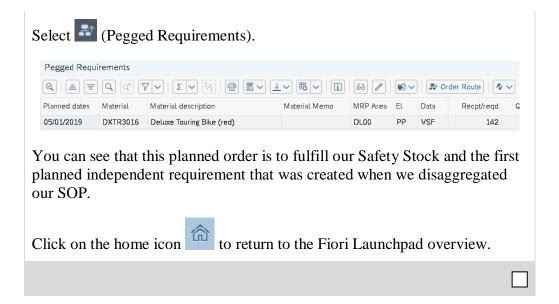


Select to go back to the individual lines.



To view the details of the first planned order (PldOrd), select (Element Details).







## Step 9: Convert Planned Order into Production Order

**Task** Convert a planned order into a production order.

Time 10 min

**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)

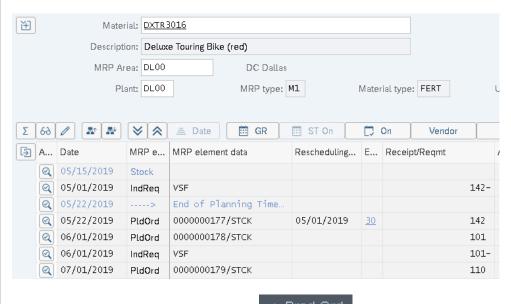
To convert planned orders into production orders, use the SAP Fiori App *Monitor Stock / Requirements List*.

Fiori App

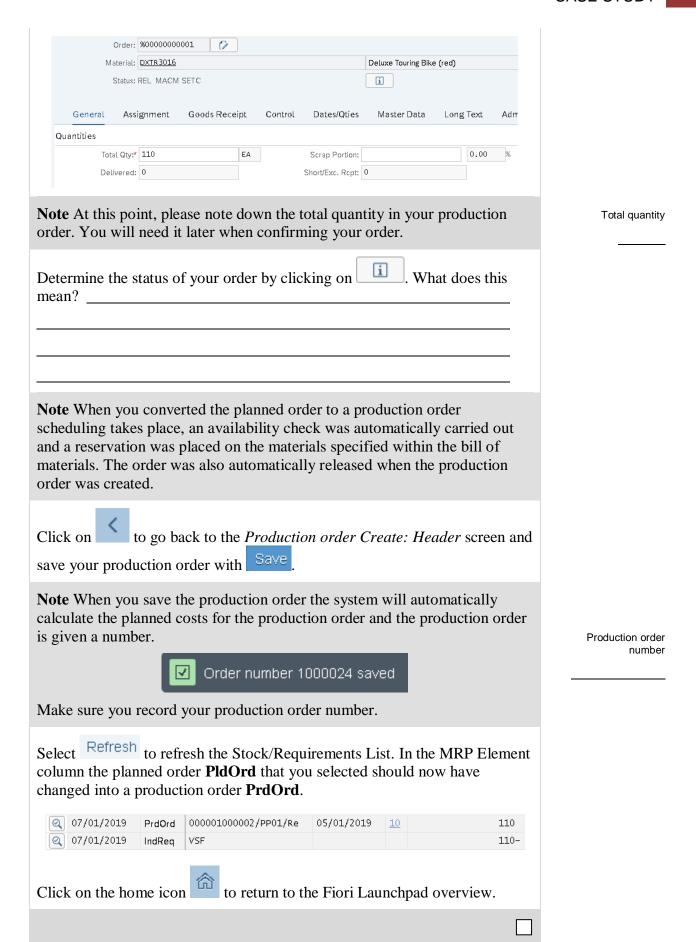


Enter Material **DXTR3**###, Plant **DL00**, and click on double-click on the third planned order.

DXTR3### DL00



In the Additional Data screen, click on order to production order). (Convert planned





## Step 10: Receive Goods in Inventory

Task Receive goods in the Dallas plant.

Time 10 min

**Short Description** Receive enough goods in the Dallas storage locations to start the production process.

Name (Position) Susanne Castro (Receiving Clerk)

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, use the app *Post Goods Movement*.

Fiori App



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.

561 today

In the Goods Receipt Other screen, enter the following data. Each of these ten materials are components that you need in your production order later on. Note that all materials are stored in the raw materials storage location in Dallas (**DL00**) except the touring wheel assembly (first component in the list) which is a semi-finished good. Maybe you need to close the lower

DL00

TRWA1### TRFR3### DGAM1### TRSK1### TRHB1###

section by clicking on to be able to enter the materials.

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

PEDL1### CHAN1### BRKT1###

WDOC1### PCKG1###

Enter DL00 as Plnt in all of the ten lines. Afterwards, press Enter.

DL00

Compare your screen with the screenshot shown below.

Line	Mat. Short Text	Wa	ок	Qty in UnE	EUn	SLoc
1	Touring Aluminum Wheel Assembly		✓	500	EA	Semi-Fin. Goods
2	Touring Frame-Red		✓	500	EA	Raw Materials
3	Derailleur Gear Assembly		✓	500	EA	Raw Materials
4	Touring Seat Kit		✓	500	EA	Raw Materials
5	Touring Handle Bar		✓	500	EA	Raw Materials
6	Pedal Assembly		✓	500	EA	Raw Materials
7	Chain		✓	500	EA	Raw Materials
8	Brake Kit		✓	500	EA	Raw Materials
9	Warranty Document		✓	500	EA	Raw Materials
10	Packaging		✓	500	EA	Raw Materials

Material document number

Save your goods receipt with Post and record the material document number.

Material document 4900005129 posted View Details



to return to the Fiori Launchpad overview.

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## Step 11: Issue Goods to Production Order

Task Issue goods to a production order.

Time 10 min

**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)

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, use the app *Post Goods Movement*.

Fiori App

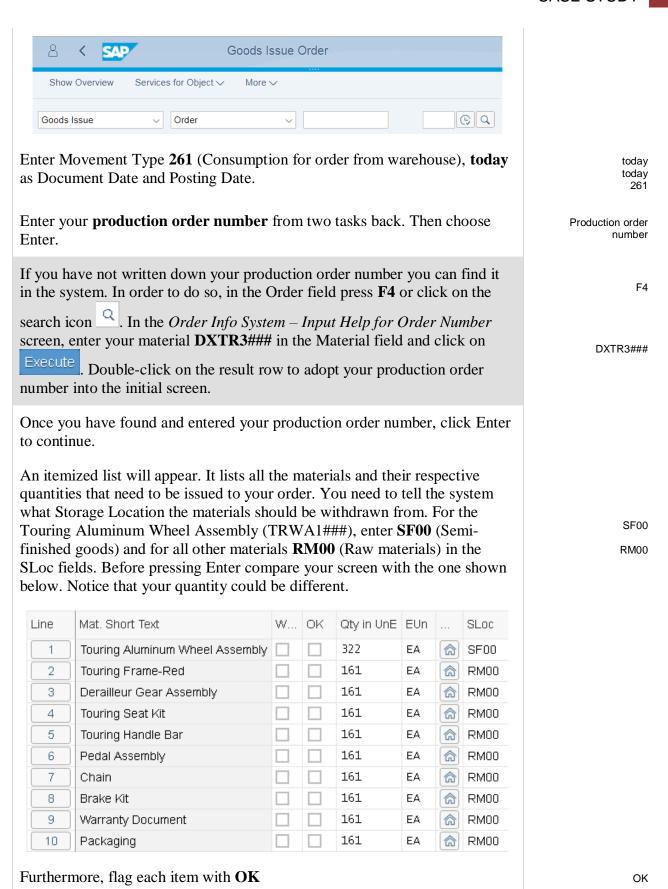


Make sure that *Goods Issue* and *Order* is selected.

**Note** Goods issues posting for the required components is another milestone in the production order process. The following functions are performed when a GI for the components of the production order is posted:

- Storage-location-specific update of the stock and consumption fields
- Reduction of the reservation (for planned withdrawal)
- Update of costs for unplanned withdrawals
- Determination of actual costs (valuation) and order update
- Consumption update
- Generation of material and accounting documents (FI and CO documents)
- Creation of material document.
- Creation of accounting document
- Creation of controlling document
- Printing of GI document

The goods issues posting is controlled through a movement type (261), to which each posting refers. This can take place manually or automatically.



and record the material document number.

Click on

## CASE STUDY

number





## Step 12: Review Production Order Status

**Task** Review the production order status.

Time 10 min

**Short Description** Review the current production order with respect to the status of the order.

Name (Position) Michael Brauer (Shop Floor Worker 4)

To display the production order, use the app Display Production Order.

Fiori App



Enter the number of your production order.

Production order number

.....

F4

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

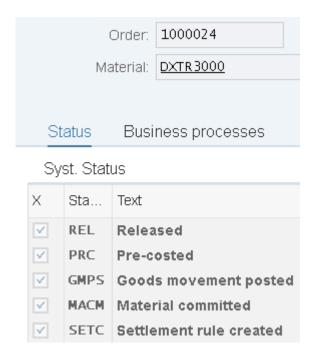
search icon Order Number (1) screen choose the tab Production Orders by Material and Routing, enter your material **DXTR3**### in the Material field and click on Enter. Double-click on the result row to adopt your production order number into the initial screen.

DXTR3###

When your production order number is entered, click on that the order status has changed and review it by clicking on again.

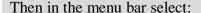
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You did a goods issue to the production order in the last task. Now, you want to review the cost assigned to the order, the material document, and the corresponding accounting document.

In order to do so, click on to go back to the header screen.





Menu bar

Cost Element	Cost Element (Text)	Origin	≖ Total Target Cost	S E	Total Actual Costs	≖ Target	t/actual var.	T/I var(%)	Currency
720300	Aufwendungen Halbfertigerzeugnisse	DL00/TRWA1016	0.0	0	24,860.00		24,860.00		USD
			- 0.0	0	24,860.00		24,860.00		USD
720000	Aufwendungen Rohstoffe	DL00/TRFR3016	0.0	0	22,000.00		22,000.00		USD
720000	Aufwendungen Rohstoffe	DL00/DGAM1016	0.0	0	8,250.00		8,250.00		USD
720000	Aufwendungen Rohstoffe	DL00/TRSK1016	0.0	0	5,500.00		5,500.00		USD
720000	Aufwendungen Rohstoffe	DL00/TRHB1016	0.0	0	2,750.00		2,750.00		USD
720000	Aufwendungen Rohstoffe	DL00/PEDL1016	0.0	0	4,950.00		4,950.00		USD
720000	Aufwendungen Rohstoffe	DL00/CHAN1016	0.0	0	1,100.00		1,100.00		USD
720000	Aufwendungen Rohstoffe	DL00/BRKT1016	0.0	0	7,700.00		7,700.00		USD
720000	Aufwendungen Rohstoffe	DL00AWDOC1016	0.0	0	110.00		110.00		USD
720000	Aufwendungen Rohstoffe	DL00/PCKG1016	0.0	0	385.00		385.00		USD
Raw Materials			- 0.0	0	52,745.00		52,745.00		USD
			0.0	0	- 77,605.00		77,605.00		USD

Here you can see the costs that were assigned to the production order from our goods issue.

Click on the home icon



to return to the Fiori Launchpad overview.



## Step 13: Confirm Production Completion

Task Confirm production order completion.

Time 10 min

**Short Description** Confirm completion for your production order.

Name (Position) Michael Brauer (Shop Floor Worker 4)

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 finished product that has been manufactured.

Production completion

To confirm production completion, use the app *Enter Production order Confirmation*.

Fiori App



Enter your **production order** number and click on Continue or Enter.

Production order number

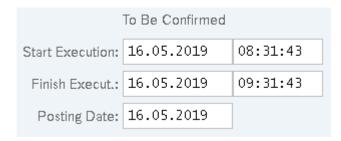
Final Confirm. Clear Reservation Amount

Select **Final Confirm.** and **Clear Open Reserv**. In the Yield Quantity. field, enter the **amount** of bikes you were supposed to produce for this order, if the field is not already filled. Remember that your amount might be different from the screen below.

Goods Movements More ✓							
	1000002 Status: REL PRC GMPS MACM SETC						
Material:	DXTR3016						
Material Descr.:	Deluxe Touring Bike (red)						
Confirmation Type							
	Partial confirmation:	0	Clear Ope	n Reservs.:	<b>V</b>		
	Final Confirmation:	•					
	Autom. Final Conf.:	0					
Actual Data							
	Curr. t/b Conf.	Unit	Confirmed to D	ate	Planned t/b Conf. Unit		
Yield Quantity:	110	EA		0	110 EA		
Scrap Quantity:				0	0		
Rework Quantity:				0			
Reason for Var.:							

1 hour earlier

Then, change the Start Execution to 1 hour earlier than the default time.



Click on Enter and save your entries with Save



**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 the home icon to return to the Fiori Launchpad overview.



## Step 14: Receive Goods from Production Order

**Task** Post a goods receipt from production order.

Time 15 min

**Short Description** Post a goods receipt from your production order.

Name (Position) Susanne Castro (Receiving Clerk)

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.

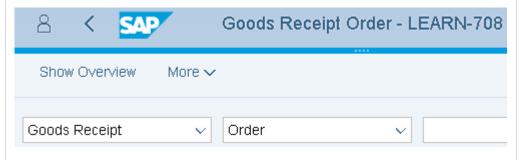
Goods receipt

To post a goods receipt, use the app Post Goods Movement.

Fiori App



Select Goods Receipt and Order in the drop-down menu.



Enter Movement Type your **production order number** and **101** (Goods receipt for order to warehouse) and. Choose Enter.

Enter as SLoc **FG00** (Finished Products) and make sure, that the plant *DL00* is entered.

Select **OK** for your item.

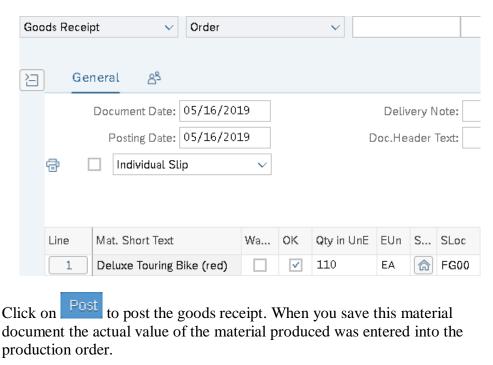
101 Production order number

FG00

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  $\rightarrow$  should equal the amount that you confirmed in the previous task



production order.



Record the material document number.

Click on the home icon to return to the Fiori Launchpad overview. Material document number



# Step 15: Review Costs Assigned to Production Order

Task Review costs assigned to your production order.

Time 5 min

**Short Description** Display and review the costs that have been assigned to your production order.

Name (Position) Jamie Shamblin (Cost Accountant)

To display costs assigned, use the app Display Production Order.

Fiori App



Enter your **production order number** and click on

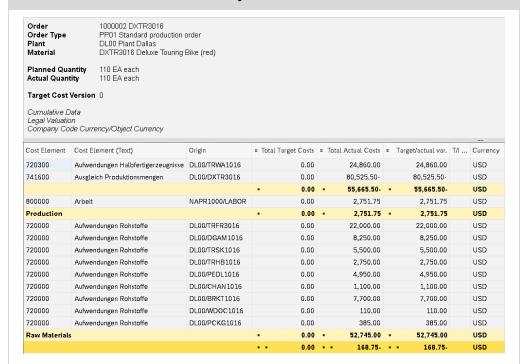


Production order

In the menu bar 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 the home icon to return to the Fiori Launchpad overview.	=



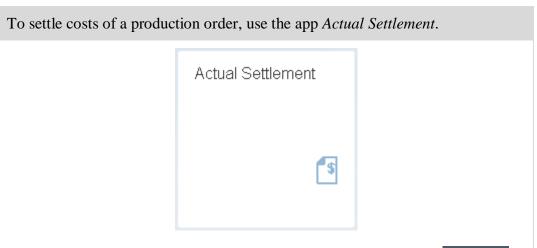
## Step 16: Settle Costs of Production Order

Task Settle costs of your production order.

Time 20 min

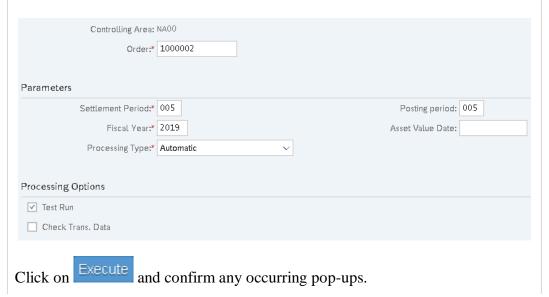
**Short Description** Settle the costs of your production order. The costs are temporarily captured in the production order and they need to be assigned to an appropriate cost object. Compare the actual costs to the planned costs to identify any deviations or potential problems in this regard.

Name (Position) Jamie Shamblin (Cost Accountant)



If you have to input the Controlling Area, enter NA00, and click on Continue

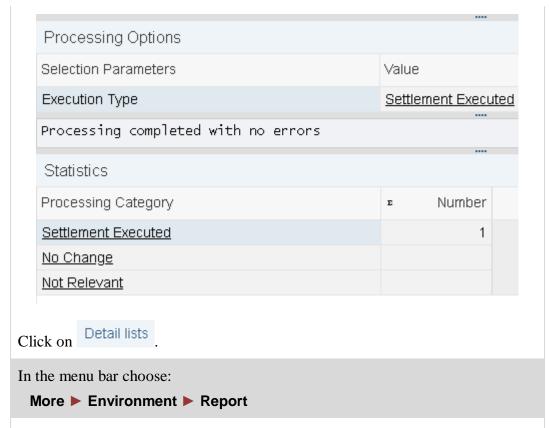
Enter your **production order number**, the **current month** as Settlement period (e.g. 007 for July), the **current month** as Posting period, and the **current year** as Fiscal year. Make sure that **Test Run** is selected.



Fiori App

NA00

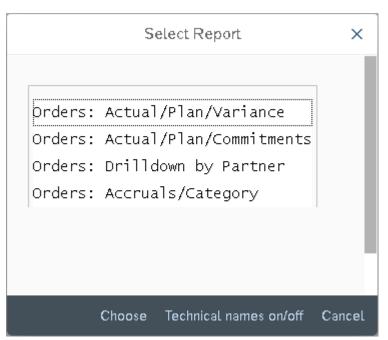
Production order number current month current month current year Test Run

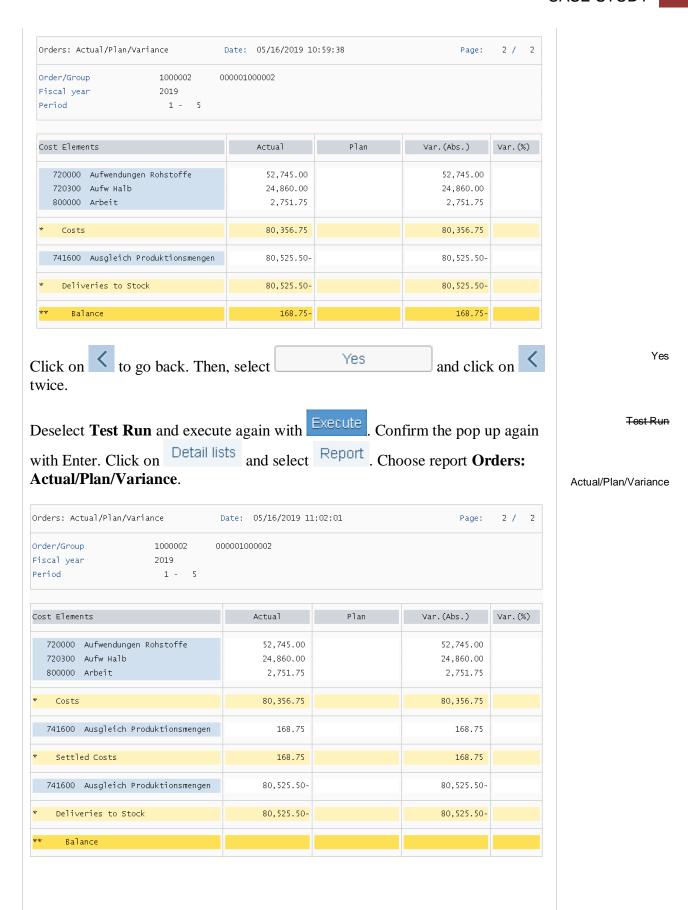


Menu bar

Actual/Plan/Variance

Then, double-click on **Orders: Actual/Plan/Variance** to select the report.



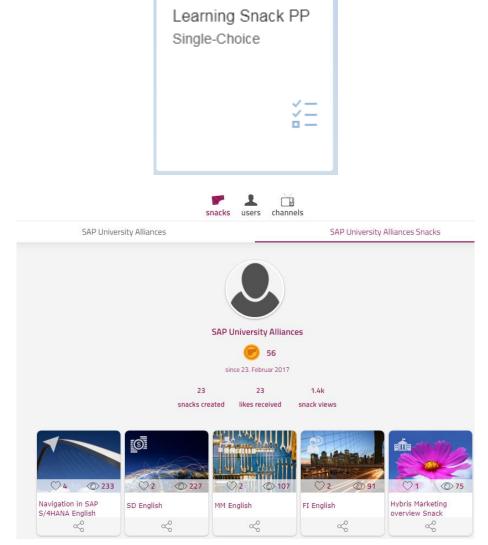


Note The manufacturing output settlement is higher than the consumption expenses for raw materials and semi-finished goods? Review and explain the expenses and the settlements of your production order in detail. How is the balance derived?	
Click on , choose Yes and Click on the home icon to return to the Fiori Launchpad overview.	Ye



In order to test and consolidate your knowledge use the app *Learning Snack PP*.

Fiori App



You see all the snacks for the individual case studies. Select the Snack *PP English* and answer all eleven questions.

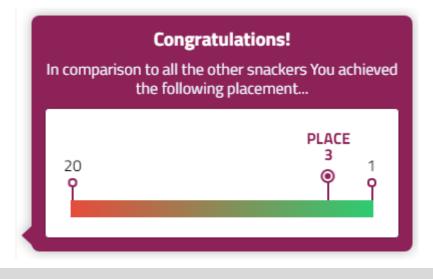
#### Hint:

If you do not see any Apps, you need to change the language on the page Learning Snacks. Therefore click on the current language right next to *change language* and choose **English**.



Learning Snack

When you have answered all the questions you will receive a success message and your placement.





**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) Mountain bikes. 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.