Chapter 09: Integrated Processes

Exercise 09-03: Proc.; Fulfill; Produce; MRP

Multiple Company Code

Version 4.12

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Introduction

General Notes and Information

It is strongly recommended that you read through the entire exercise prior to starting. Not all instructions can be provided in a linear manner in the exercise itself. READ CAREFULLY!

The following symbols are used to indicate important information as described below.

* An arrow highlights an important instruction that must not be overlooked.

🖉 A pencil prompts you to write down an important piece of information.

Each student or group will be assigned a unique two-digit identifier. This identifier is used in all exercises. Whenever you see ##, replace it with your identifier. For example, Joe may have an identifier of 05. Every time Joe sees the ## symbol, he will replace it with “05”.

* Always work with your data.

Business Process Overview

This exercise starts by receiving a purchase order from a customer. You will utilize what you have learned to execute the procurement, production, fulfillment, and MRP processes in SAP to fill the order from the customer. We recommend that you use previous exercises as guidelines for completing the exercise while keeping in mind the different scenarios.

Exercise Prerequisites

None

Exercise Workflow

Deliverables are consolidated into one worksheet at the end of the exercise. It is only necessary to turn in that worksheet and that worksheet alone along with data in the system if required.

For this exercise you will need the following deliverables:

Exercise Deliverables

In the System:

* Finished Good MRP View Created for Miami
* Trading Good MRP View Created for Miami
* Sales Quotation Created
* Sales Order Created
* MRP Runs in Miami Created
* Purchase Requisition Created
* Purchase Orders Created
* Stock Transport Order Created
* Goods Receipts Created
* Invoices Created
* Vendor Accounts Paid Off
* MRP Run in Dallas Created
* Semifinished Product Planned Order Converted into Production Order
* Semifinished Product Materials Issued to Production Order
* Semifinished Product Production Order Confirmed
* Semifinished Product Received into Inventory
* Finished Product Planned Order Converted into Production Order
* Finished Product Materials Issued to Production Order
* Finished Product Production Order Confirmed
* Finished Product Received into Inventory
* Goods Issue for Stock Transport Order Created
* Goods Receipt for Stock Transport Order Created
* Outbound Delivery Created
* Shipment Sent to Customer
* Invoice Sent to Customer
* Customer Account Paid Off

On Paper:

* Document Number(s)
* Answer(s) to Questions
* You may be assigned additional deliverables. Make certain to check with your instructor.

Step 1: Create Appropriate Master Data

Before you start the entire cycle, you need to create the following master data beforehand. Notice that some master data (that you need) is already created in the system such as bill of materials.

* It IS VITAL inventory be cleared out to accurately follow steps. You may use movement type 562 to do this.
* You need to copy from the original silver deluxe touring bike finished good to create your own finished good. Create the finished good using the MRP 1 view within Miami.
* Remember to create this material using the appropriate MRP type.
* Create the trading good using the MRP 1 view within Miami.
* You need a copy from the original Beantown Bikes to sell to your Beantown Bikes.

Exercise Deliverables:

In the System:

* Finished Good MRP View Created for Miami
* Trading Good MRP View Created for Miami

On Paper:

* None

Step 2: Begin Fulfillment Process

In this step, you received a purchase order from Beantown Bikes for five silver bikes and five road helmets in Miami (purchase order number is 0##-43660). You will begin fulfilling this order by creating a quotation. It may help you to refresh your memory that within GBI US, although previously fulfilled from Miami, Miami buys and sells while Dallas produces. After performing this, you will run MRP to produce a purchase requisition for each material.

* The sales quotation will be using the east sales organization and the bicycles division.
* Again, use a previous exercise (Chapter 05) on how to correctly create a sales quotation.
* Reference the sales quotation number to create the sales order accurately just like Chapter 05.
* You will be brought to a screen that says “Standard Order: Availability Control” at the top. Simply click on the “Continue” icon through both material screens until you reach the “Create Standard Order: Overview” screen. This screen that you have to continue through is simply indicating the fact that the quantity ordered is larger than how much inventory is on hand. We will address this in the last step for this exercise after your inventory is filled.
* Remember what the purchase order number is from the beginning of this step.

1. What is the sales quotation number?       (Will Vary)🖉
2. What is the sales order number?       (Will Vary)🖉
3. In the “SAP Easy Access” screen, follow the navigation path below:

Navigation

Logistics 🡪 Production 🡪 MRP 🡪 Planning 🡪 Single-Level, Single-Item

1. What is the transaction code for single-item planning, single-level?       MD03🖉
2. In the “Single-Item, Single-Level” screen, enter the following information:

|  |  |
| --- | --- |
| Field Name | Data Entry |
| Material | Your Road Helmet (RHMT10##) |
| Plant | Your DC Plant Miami (MI##) |
| Create purchase req. | Planned orders (3) |
| Planning mode | Delete and recreate planning data (3) |

* Hint: These planned orders can be converted into purchase requisitions later using the Stock/Requirements list.

1. Click on  (ENTER).

You will receive a message that says “Please check input parameters”.

1. Click on  (ENTER).

You will receive a message that says “MRP carried out for RHMT10##”.

1. Enter the following information:

|  |  |
| --- | --- |
| Field Name | Data Entry |
| Material | Your Deluxe Touring Bike (silver) (DXTR20##) |
| Create purchase req. | Planned orders (3) |
| Planning mode | Delete and recreate planning data (3) |

1. Click on  (ENTER).

You will receive a message that says “Please check input parameters”.

1. Click on  (ENTER).

You will receive a message that says “MRP carried out for DXTR20##”.

Exercise Deliverables:

In the System:

* Sales Quotation Created
* Sales Order Created
* MRP Runs in Miami Created

On Paper:

* Document Number(s)

Step 3: Begin Procurement Process

In this step, you procure the required materials to fulfill the customer purchase order. You will need to procure all of the raw materials and trading goods needed to fulfill this order. At your convenience, you have a vendor that sells road helmets and another vendor that sells all raw materials for your bike. These vendors are Olympic Protective Gear and Spy Gear respectively. Materials are listed in the BOM for the silver bike which is shown at the end of this document.

Through this entire process, you will be using MRP to produce the appropriate orders. Be careful that if you do not perform this, this exercise will not be performed properly for your instructor.

* Note that from a raw materials perspective, the fact that we are procuring all raw materials is not normal. Normally, a company would procure required materials from multiple vendors.
* DO NOT use movement type 561 (“inventory from heaven”) to acquire these materials!
* Use the Stock/Requirements list and create purchase requisitions for your five road helmets as well as your five silver bikes that must be eventually delivered to the customer at the end. Note that the requisition for road helmets will become a normal purchase order while the requisition for bikes will become a Stock Transport Order requesting bikes from Dallas.
* Once you are in the Stock Requirements List, remember that you want to create both purchase requisitions from the planned orders generated from the MRP in the previous step.
* It is not necessary to create any additional product groups or an SOP for this exercise. Just follow the instructions below in regards to MRP.

1. What is the purchase requisition number for road helmets?       (Will Vary)🖉
2. What is the purchase requisition number for bikes?       (Will Vary)🖉
3. What is the purchase order number for road helmets?       (Will Vary)🖉
4. What is the stock transport order number for bikes?       (Will Vary)🖉
5. What is the goods receipt number for road helmets?       (Will Vary)🖉
6. What is the invoice number for road helmets?       (Will Vary)🖉
7. What is the payment accounting document number for road helmets?       (Will Vary)🖉
8. In the “SAP Easy Access” screen, follow the navigation path below:

Navigation

Logistics 🡪 Production 🡪 MRP 🡪 Planning 🡪 Multilevel Single-Item Planning

1. What is the transaction code for multilevel single-item planning?       MD02🖉
2. In the “Single-Item, Multi-Level” screen, enter the following information:

|  |  |
| --- | --- |
| Field Name | Data Entry |
| Plant | Your Plant Dallas (DL##) |
| Create purchase req. | Purchase requisitions (1) |
| Planning mode | Delete and recreate planning data (3) |

1. Click on  (ENTER).

You will receive a message that says “Please check input parameters”.

1. Click on  (ENTER).

* Use Chapter 04 and Chapter 08 as references and create a purchase order.
* You will eventually receive a message that says “Requisition has different doc. type NB and item cat. ><”. Simply enter through this message to continue creating the transport order.
* Remember that to correctly use MRP to do this, go to the Stock/Requirements List.
* You are creating the purchase order from already-created purchase requisitions.

1. What is the purchase order number for raw materials?       (Will Vary)🖉
2. What is the goods receipt number for raw materials?       (Will Vary)🖉
3. What is the invoice number for raw materials?       (Will Vary)🖉
4. What is the payment accounting document number for raw materials?       (Will Vary)🖉

Exercise Deliverables:

In the System:

* Purchase Requisition Created
* Purchase Orders Created
* Stock Transport Order Created
* Goods Receipts Created
* Invoices Created
* Vendor Accounts Paid Off
* MRP Run in Dallas Created

On Paper:

* Document Number(s)

Step 4: Production Process

Now that the raw materials are in stock, the integrated process can be continued with production. You can reference Chapter 06 for this step. However, make sure your storage locations are right.

* Check to make sure all raw materials are in the proper locations for production.
* Be sure that you are selecting the correct item on the stock/requirements list and the appropriate materials are going to and from the proper storage locations for production.

1. What is the production order number for the semifinished product?       (Will Vary)🖉
2. What is the goods issue number for the semifinished product?       (Will Vary)🖉
3. What is the goods receipt number for the semifinished product?       (Will Vary)🖉
4. What is the production order number for the finished product?       (Will Vary)🖉
5. What is the goods issue number for the finished product?       (Will Vary)🖉
6. What is the goods receipt number for the finished product?       (Will Vary)🖉

Exercise Deliverables:

In the System:

* Semifinished Product Planned Order Converted into Production Order
* Semifinished Product Materials Issued to Production Order
* Semifinished Product Production Order Confirmed
* Semifinished Product Received into Inventory
* Finished Product Planned Order Converted into Production Order
* Finished Product Materials Issued to Production Order
* Finished Product Production Order Confirmed
* Finished Product Received into Inventory

On Paper:

* Document Number(s)

Step 5: End Procurement Process

In this step, you finish the procurement process by transporting the bikes from Dallas to Miami.

1. What is the goods issue number for the stock transport order?       (Will Vary)🖉
2. What is the goods receipt number for the stock transport order?       (Will Vary)🖉

Exercise Deliverables:

In the System:

* Goods Issue for Stock Transport Order Created
* Goods Receipt for Stock Transport Order Created

On Paper:

* Document Number(s)

Step 6: End Fulfillment Process

In this step, you end the fulfillment process by sending shipment and invoice to your customer.

* In order to tell the system (sales order) that you now have sufficient inventory in the system to fulfill the purchase order sent by your customer, it is highly advised to go back to your sales order to note the required delivery date you have entered and to make sure that multiple schedule lines to disappear for all of your materials. This is done in “Availability Check”.

1. What is the outbound delivery number?       (Will Vary)🖉
2. What is the invoice billing number?       (Will Vary)🖉
3. What is the accounting document number for receiving the payment?       (Will Vary)🖉

Exercise Deliverables:

In the System:

* Outbound Delivery Created
* Shipment Sent to Customer
* Invoice Sent to Customer
* Customer Account Paid Off

On Paper:

* Answer(s) to Questions
* Document Number(s)

Attachment 1: Exercise Worksheet

**Name:**

**Course and Section:**

**Identifier:**

**Client:**

1. What is the sales quotation number? (Will Vary)🖉
2. What is the sales order number? (Will Vary)🖉
3. What is the transaction code for single-item planning, single-level? MD03🖉
4. What is the purchase requisition number for road helmets? (Will Vary)🖉
5. What is the purchase requisition number for bikes? (Will Vary)🖉
6. What is the purchase order number for road helmets? (Will Vary)🖉
7. What is the stock transport order number? (Will Vary)🖉
8. What is the goods receipt number for road helmets? (Will Vary)🖉
9. What is the invoice number for road helmets? (Will Vary)🖉
10. What is the payment accounting document number for road helmets? (Will Vary)🖉
11. What is the transaction code for multilevel single-item planning? MD02🖉
12. \What is the purchase order number for raw materials? (Will Vary)🖉
13. What is the goods receipt number for raw materials? (Will Vary)🖉
14. What is the invoice number for raw materials? (Will Vary)🖉
15. What is the payment accounting document number for raw materials? (Will Vary)🖉
16. What is the production order number for the semifinished product? (Will Vary)🖉
17. What is the goods issue number for the semifinished product? (Will Vary)🖉
18. What is the goods receipt number for the semifinished product? (Will Vary)🖉
19. What is the production order number for the finished product? (Will Vary)🖉
20. What is the goods issue number for the finished product? (Will Vary)🖉
21. What is the goods receipt number for the finished product? (Will Vary)🖉
22. What is the goods issue number for the stock transport order? (Will Vary)🖉
23. What is the goods receipt number for the stock transport order? (Will Vary)🖉
24. What is the outbound delivery number? (Will Vary)🖉
25. What is the invoice billing number? (Will Vary)🖉
26. What is the accounting document number for receiving the payment? (Will Vary)🖉

